Glass AND STORE FRONT PRODUCTS

PITTSBURGH PLATE GLASS COMPANY

and

PITTSBURGH CORNING CORPORATION

Michael Jordan

PITTSBURGH GLASS PRODUCTS

PITTSBURGH PLATE GLASS COMPANY

PITTSBURGH MAKES 19 GLASS PRODUCTS

The Pittsburgh Plate Glass Company is the largest manufacturer of flat glass products in the world. Included among Pittsburgh Glass Products are all the types commonly used for glazing and decoration, as well as many special glasses for special architectural purposes. This manufacturer, in more than half a century of glass making, has developed the most modern and efficient production methods and machinery, has integrated its facilities and operations so successfully that it has established an unusually high standard of quality in all Pittsburgh Glass Products. This consistently high quality explains the enviable reputation won by Pittsburgh Plate Glass Company in the building trades.

What Pittsburgh's Exhaustive Research in Glass Making Means to the Architect

Since its founding, this company has been a pioneer in glass research and development. Its resources have been expended generously to improve old glass products and develop new ones. As a result the architect of today has better glass to work with, and a far wider variety of glass products to assist him in creating buildings more beautiful, useful and durable than ever before.

Pittsburgh Service Is Available for Consultation, Planning and Installation

It has always been the endeavor of the Pittsburgh Plate Glass Company to co-operate to the fullest extent with the architectural profession. To this end, we maintain a special staff of architectural representatives, whose whole duty consists in rendering the architect every assistance possible in connection with the use of glass and paint. And our staff of store front experts is maintained to serve the architect in matters concerning the styling and installation of modern store fronts. We extend a cordial invitation to all architects to take advantage of these services at any time.

Pittsburgh Glass Data Service

This service was inaugurated by the Pittsburgh Plate Glass Company to meet a definite need . . . the need for some adequate method of keeping the architectural profession constantly informed on glass in its many forms and applications. The Pittsburgh Glass Data Service consists of direct mailings of data on glass to the recipients of Sweet's Catalog File for the Building Market. When new glass products are developed . . . when new catalogs of information on various products become available . . . when detail drawings or recommended installation methods are worked out . . . when new data on glass uses, glass applications, glass design are published . . . the Pittsburgh Glass Data Service places them in your hands immediately.

Extensive Advertising Has Sold Clients on Pittsburgh Glass

This Company has consistently supported a comprehensive advertising program to acquaint clients and prospective clients of the architect with the qualities and possibilities of Pittsburgh Glass Products. The public familiarity with our glass and its excellence, results in a readier approval of architects' designs and specifications when Pittsburgh Glass is used.

Prominent Installations and Repeat Orders Prove Excellence of Pittsburgh Glass Products

Pittsburgh Glass Products have been used in every type of building, for all glazing and decorative purposes, in outstanding installations throughout the country. A list of the finest modern edifices constructed in the United States would be, to a large extent, a list of buildings in which Pittsburgh Glass Products of some description have been used. And a roster of America's finest architects, standing for architectural achievement of the best kind, would practically be a roster of architects who have specified Pittsburgh Glass not once . . . but again and again and again. This preference for Pittsburgh Glass in the nation's outstanding buildings, this repeated specification of Pittsburgh Glass by architects whose reputations depend not only on their creative genius but also their judgment of materials, is the best proof that could be had of the excellence and satisfactory performance of Pittsburgh Glass.

OTHER PRODUCTS OF THE COMPANY

Pittsburgh Plate Glass Company, in addition to the products described in this catalog, also manufactures paints and varnishes of all kinds, Carrara Structural Glass and Pitteo Store Front Metal (see sections in SWEET'S on Pittsburgh Paints, Carrara Structural Glass and Pitteo Store Front Metal); and serves as distributing agent for PC Glass Blocks and PC Architectural Glass which are manufactured by the Pittsburgh Corning Corporation (see sections in SWEET'S on PC Glass Blocks and PC Architectural Glass).

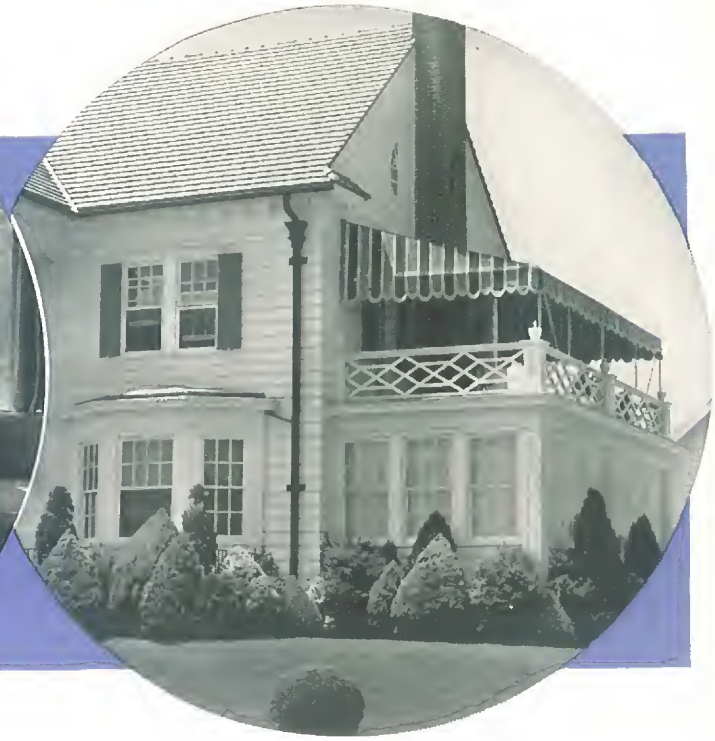
Paint · PITTSBURGH · Glass
PLATE GLASS COMPANY

General Offices GRANT BUILDING • PITTSBURGH, PA.

• *For list of warehouses and map showing warehouses and factories see back cover*

GUIDE-LIST AND INDEX OF PITTSBURGH GLASS PRODUCTS

PRODUCT	QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS	STRENGTH	COLORS	FINISH	PAGE
Polished Plate Glass	Silvering Mirror Glazing Glazing	1/8" 7/32" 1/4"	1/8" 72x123 7/32" 123x216 1/4" 160x220 150x260	1/8" 1.75 lbs. [] 7/32" 2.91 lbs. [] 1/4" 3.29 lbs. []	Tension 6500 lbs. [] Compression 36000 lbs. [] Modulus Elasticity 10,000,000	Clear	Ground and Polished	4
Vista Plate Glass	Silvering Mirror Glazing Glazing	9/64" to 9/64"	72x123 (Sizes over 7 [] not recommended for exterinr glazing)	1.75 lbs. []	In direct proportion to the square of the thickness	Clear	Ground and Polished	4
Heavy Plate Glass	Commercial Selected	3/8" 1/2" 5/8" 3/4" 7/8" 1" 1-1/4"	3/8" to 1/2" 72x160 5/8" to 1" 72x130 1-1/4" 70x130	3/8" 4.93 lbs. [] 1/2" 6.58 lbs. [] 5/8" 8.22 lbs. [] 3/4" 9.67 lbs. [] 7/8" 11.52 lbs. [] 1" 13.16 lbs. [] 1 1/4" 16.45 lbs. []	In direct proportion to the square of the thickness	Clear	Ground and Polished	6
Blue Plate Glass	Selected only	13/64"	123x216	2.67 lbs. []	Same as regular plate glass	Blue	Ground and Polished	6
Flesh Tinted Plate Glass	Selected only	13/64"	123x216	2.67 lbs. []	Same as regular plate glass	Flesh Tinted	Ground and Polished	6
Crystalex Water White Plate Glass	Silvering Glazing	1/4"	123x216	1/4" 3.29 lbs. []	Same as regular plate glass	Water White	Ground and Polished	7
Solex Heat-Absorbing Plate Glass	Glazing only	1/4"	123x216	3.29 lbs. []	Same as regular plate glass	Bluish Green	Ground and Polished	7
X-Ray Lead Glass	Glazing only	5.35 to 7.35 m/m	40x72	5 1/2 lbs. []	Approximately 2/3 as strong as plate glass of equal thickness	Golden Yellow	Ground and Polished	9
Herculite	Same as glass before tempering	Same as glass before tempering	48x108	Same as glass before tempering	Approximately 4 times that of glass of equal thickness which has not been tempered	Same as glass before tempering	Same as glass before tempering	8
Herculite Doors	Selected	3/4"	48x108	9.67 lbs [] plus hardware	Approximately 4 times that of 3/4" glass which has not been tempered	Clear	Ground and Polished	8 and see Pittsburgh Plate Section on Herculite Doors
Multiplate Bullet-Resisting Plate Glass	Commercial	1/2" minimum 3/4" minimum 7/8" minimum 1" minimum Super 1 1/8" min. Hi-Resist 1 1/2" min. Hi-Power 2" min.	45x84	1/2" 6.91 lbs. 3/4" 10.30 lbs. 7/8" 11.90 lbs. 1" 13.57 lbs. 1 1/8" 15.23 lbs. 1 1/2" 21.70 lbs. 2" 27.11 lbs.	For recommendations of protection against various firearms, see Page 9	Clear	Ground and Polished Plate Glass laminated	9
Carrara Structural Glass	Selected	Black, 1/4", 11/32", 7/16", 3/4", 7/8", 1 1/4" White, Jade, Gray, Ivory, 3/4", 7/16", 3/4", 7/8", 1 1/4" Forest Green, Beige, 11/32" only Wine, Orange, Rembrandt Blue, 7/16" only	72x130	1/4" 3.29 lbs. [] 11/32" 4.5 lbs. [] 7/16" 5.76 lbs. [] 3/4" 9.87 lbs. [] 7/8" 11.51 lbs. [] 1 1/4" 16.45 lbs. []	Approximately same as regular plate glass	Jade, Ivory, Gray, White, Black, Wine, Rembrandt Blue, Orange, Beige and Forest Green (All Opaque)	Ground and Polished one side, 1/4" black, 7/8" and 1 1/4" also polished both sides	See Pittsburgh Plate Glass catalog on *Carrara* in Sweet's
Nucite Glass Chalkboard	Selected	1/4" only	48x90	3.32 lbs. []	Greater than regular plate glass	Ivory Green Black	Special Chalkboard	See Pittsburgh Plate catalog on *Nucite* in Sweet's
Pittsburgh Mirrors Regular Copper-Back Structural	Silvering Mirror Glazing Glazing	Fabricated from any thickness of glass	Regular— Up to maximum glass size Copper-Back and Structural 86x168	Approximately same as plate glass	Approximately same as plate glass	Plain, Blue, Flesh Tinted, Water White, Blue-Green	Silver, gold or gun-metal backing on any color glass	10
Tapestry Glass	Glazing	7/32"	60x144	2.89 lbs. []	Equal to or greater than that of regular plate glass	Translucent Semi-Opaque	Plain, 7/32" Polished, 7/32"	10
Pennvernon Window Glass	AA-A-B Greenhouse	Picture .063-.068 Single Strength .087 - .095 Double Strength .118 - .133 Heavy Sheet 3/16" - .187 to .200 7/32" - .212 to .225	Heavy Sheet 3/16" up to 50 [] 7/32" up to 60 []	Picture 13-14 oz. [] S.S. 19 oz. [] D.S. 26 oz. [] 3/16" 40 oz. [] 7/32" 45 oz. []	Same as plate glass of equal thickness	Clear	Fire-finished	11
No. 1086 Document Glass	Glazing only	1/4"	40x72	5 1/2" lbs. []	Approximately 2/3 as strong as plate glass of equal thickness	Canary Yellow	Ground and Polished	9
PC Glass Blocks (Mfgd. by Pittsburgh Corning Corp.—Dist. by Pittsburgh Plate Glass Company)	Selected	3 7/8" (hollow)	Actual sizes: 5 3/4" x 5 3/4" 7 3/4" x 7 3/4" 11 3/4" x 11 3/4"		See Pittsburgh Corning catalog on PC Glass Blocks in SWEET'S	Clear	Moulded	See Pittsburgh Corning catalog on *PC Glass Blocks* in Sweet's
PC Architectural Glass (Mfgd. by Pittsburgh Corning Corp.—Dist. by Pittsburgh Plate Glass Company)	Selected	Varies with the piece	Varies	Varies with the piece		Clear	As desired	See Pittsburgh Corning catalog on *PC Architectural Glass* in Sweet's



POLISHED PLATE GLASS

The Aristocrat of the Transparent Flat Glass Family

Polished Plate Glass is ground and polished, mechanically, to a true, flat surface and a perfect brilliance and reflectivity of finish. It is the finest material available for exterior and interior glazing and should be used wherever clarity of vision, beauty and dignity are desired. Objects viewed through polished plate glass, or reflected from it, are undistorted and perfectly natural in shape, form and outline. It imparts to buildings in which it is used a brilliance and luster, a distinction and charm, that enhances their appearance and adds immeasurably to their rental and sales value.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Mirror Glazing	1/8"	1/8" 72x123 7/32" 123x216 1/4" 160x220	1/8" 1.75 lbs. [ ] 7/32" 2.91 lbs. [ ] 1/4" 3.29 lbs. [ ]
Glazing	7/32" 1/4"	150x260	

STRENGTH	COLORS	FINISH
Tension 6500 lbs. [ ] Compression 36000 lbs. [ ] Modulus Elasticity 10,000,000	Clear	Ground and Polished

VISTA PLATE GLASS

Thin Plate Glass for General Glazing Purposes

Vista Plate Glass was developed to meet a definite need in the building industry . . . the need for a fine plate glass which could be used for general glazing, but which would be low enough in cost to warrant wide use, and which could be glazed in standard sash with standard sash weights.

Has Advantages of Heavier Plate Glass

Vista Plate Glass meets these requirements. It has all the visual advantages of heavier plate glass. High polish on both surfaces, with the accompanying intrinsic beauty of brilliant luster and reflection. Absolute freedom from distorting defects, with consequent ability to transmit with perfect clarity all objects seen through it. And sufficient strength and durability to assure permanence when it is used in residences or other buildings.

Increases Resale Value of Houses

The building glazed with Vista Plate has a greater resale value which more than offsets the slight extra cost of Vista Plate over ordinary window glass. Vista Plate is glazed in standard 1⅜ in. sash with ordinary sash weights.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Mirror Glazing Glazing	6/64" to 9/64"	72x123 (Sizes over 7 sq. ft. not recommended for exterior glazing)	1.75 lbs. [ ]

STRENGTH	COLORS	FINISH
In direct proportion to the square of the thickness	Clear	Ground and Polished

For list of warehouses and map showing warehouses and factories see back cover

UNITED STATES GOVERNMENT SPECIFICATIONS FOR PLATE GLASS FOR GLAZING PURPOSES

CLASSIFICATION

Polished Plate Glass: silvering quality, glazing quality.

DEFINITIONS OF THE GENERAL CLASSES OF POLISHED PLATE GLASS

Plate Glass—Transparent, flat, relatively thin glass having plane polished surfaces and showing no distortion of vision when viewing objects through it at any angle.

Plate Glass is made at present by casting and rolling large sheets periodically or by rolling a continuous sheet. The sheets are then ground and polished.

DETAILED SPECIFICATIONS OF POLISHED PLATE GLASS

General Principles Involved in Grading Glass—All flat glass contains some imperfections and the principle employed in grading is to exclude all defects that would be objectionable in a given grade. This is difficult to do since there are no sharp lines of demarcation between grades, and experienced inspectors will differ in judgment as the quality of the glass approaches the limits of the grades. Small lights must be quite free from imperfections, as compared with larger ones, and the center of any sheet should be clear, whereas the edges may contain more pronounced defects.

Method of Examination—The method of examination is described in these specifications in order to make the results more uniform, and defines the condition under which glass should be examined because the distance from the glass, the angle between the glass and the line of sight, and the intensity of light all affect the visibility of imperfections.

These specifications should be interpreted by examining the glass in the following manner, with reference to the definitions of defects listed in the glossary:

The glass should be examined when placed in a position similar to that of a glazed light with the observer's eye on a level with the center of the sheet, and looking through the glass from a distance of about 36 in. into the light from a clear sky without any sun or any close background.

The visibility of waves, lines or cords depends chiefly upon the angle of observation, and the intensity of these defects can be classified on this basis. The values given for angles are the angles the line of sight makes with the sheet of glass when in a vertical position. Slight movement of the head horizontally through an angle of two or three degrees will make waves or lines more perceptible.

Acceptance or Rejection—Acceptance or rejection of a shipment or delivery shall be based on an examination of the following quantities:

For orders of 100 lights or less, all shall be examined; for orders of 101 to 500 lights, at least 50% shall be examined; for orders of 501 or more lights, at least 25% shall be examined. Boxes shall be selected from the shipment at random.

If not more than 10% of the lights examined are below quality, the shipment shall be accepted provided the lights below the specified grade are not distinctly below the upper limits of the next lower grade.

If, however, an entire shipment of 500 lights or more is examined, not more than 5% may be below quality.

SPECIFICATIONS FOR POLISHED PLATE GLASS

Sizes and Thicknesses—The standard of thicknesses of plate glass shall be ⅛, $\frac{3}{16}$, ¼, ⅜, ½, ⅝, ¾, ⅞, 1 and 1¼ in. Sheets are available ¼ in. thick in sizes having a maximum area of 250 sq. ft. Glass of ¼ in. thickness may be furnished having almost any desired dimension under the following maximums: 120x280 in. 144x260 in., 160x240 in.

Tolerance in Thicknesses—The maximum and minimum thicknesses allowed shall not be more than given thickness plus or minus one-half the difference between the standard thicknesses. The general variation in thickness should not be more than $\frac{1}{32}$ in. for individual lights under 10 square feet in thicknesses up to ¼ in. The variation in lights over ¼ in. in thickness should not exceed one-half the total tolerance for that thickness.

Polished plate glass ¼, ⅛ and $\frac{3}{16}$ in. thick is carried in stock in the larger cities.

Tolerance in Dimensions—Variation from dimensions ordered shall not be more than $\frac{1}{32}$ in. per ⅛ in. thickness.

Grades—Plate glass shall be furnished for glazing purposes in one of two grades as specified. These grades will be known as silvering and glazing qualities.

Silvering quality is invariably used where the highest standard of glazing is required and imperfections are discoverable only in close inspection. This quality is rarely sold for glazing purposes in sizes over 20 sq. ft. Glazing quality represents the usual selection of plate glass supplied when quality is not otherwise definitely specified.

As allowable tolerances in quality must vary considerably with size of sheet required, different specifications will apply in each of the following four divisions according to size:

Division I. Sheets up to and including 10 sq. ft. in area.

Division II. Sheets having an area greater than 10 sq. ft. but not greater than 25 sq. ft.

Division III. Sheets having an area greater than 25 sq. ft. but not greater than 75 sq. ft.

Division IV. Sheets having an area greater than 75 sq. ft.

Division I. (Sizes Up to and Including 10 Sq. Ft.)—*Silvering Quality*—This glass shall not contain any major defects. The central area of this glass may contain only well scattered seeds. Ream, skim, short finish, and scratches which cannot be removed by buffing, are not permissible. The edges may contain coarse seeds, but none shall be larger than $\frac{1}{32}$ in. in diameter.

Glazing Quality—The central area of this quality may contain numerous scattered seed, including an occasional coarse seed, but no heavy seed. Small bubbles may occur on the edge. Stones, large bubbles, skim, ream, or long or heavy scratches are not permissible. Faint strings in the corners or upper edge of the light are permissible. The polish shall not show areas of short finish.

Division II. (Sizes from 10 Sq. Ft. to 25 Sq. Ft., Inclusive)—*Silvering Quality*—The central area of this quality may contain more numerous fine seed than the small sizes and an occasional coarse seed. The edges may contain occasional small bubbles and fine strings. No heavy defects or scratches which cannot be removed by buffing are permissible. The polish must be good and free from visible short finish.

Glazing Quality—The central area may contain small bubbles and fine strings or ream which do not give visible distortion when looking straight through the glass, but no long or heavy scratches. The edges may contain bubbles over $\frac{3}{32}$ in., visible scratches shorter than 10 in., small areas of ream, strings, and small stones not larger than $\frac{1}{32}$ in., but these defects should not be grouped nor interfere with the vision. The polish over the central area should be good, but patches of light, short finish may be present about the edges.

General—None of the above grades or sizes may contain any heavy or long lines, streaks of ream, any bubbles larger than ⅛ in., visibly poor polish, open bubbles, areas of skim, or stones over $\frac{1}{32}$ in. in diameter.

Division III. (Sizes from 25 Sq. Ft. to 75 Sq. Ft.)—*Glazing Quality*—Lights of this size may contain numerous visible and larger imperfections not allowed in the smaller lights. But these must not be grouped or so prominent that they noticeably interfere with the vision. The central area of the plate shall be free from these larger defects.

The sheets may contain seed of any size, but not heavy seed except in relatively small patches on the outer border of the sheet, occasional bubbles up to ⅛ in. in the center and up to $\frac{3}{16}$ in. on the borders, strings, ream and skim in very limited areas if not causing a deformation of objects viewed through the plate, occasional scratches and small stones under $\frac{1}{16}$ in. Heavy ream, heavy cord, bubbles larger than $\frac{3}{16}$ in. in diameter, stones larger than $\frac{1}{16}$ in. in diameter, large fire cracks, areas of unpolished glass, easily visible poor polish, large open bubbles, or sand holes, are not permitted. The large defects should be confined to the upper edge and upper corners of the sheet, the lower and central areas to be relatively free from major defects.

Division IV. (Sizes Greater than 75 Sq. Ft.)—Sheets larger than 75 sq. ft. may contain defects of almost any kind except that they must not show large areas of heavy seed or bubbles nor have any defects which will cause spontaneous breakage, such as skim or large stones (⅛ in. in diameter) or show any areas of unpolished glass.

GLOSSARY OF TERMS USED IN THESE SPECIFICATIONS

The following terms shall be used in specifications:

Plate Glass—Seeds, short finish, skim, strings, scratches, bubbles, open bubbles, ream, stones, fire cracks, sand holes.

Bubbles—Gas inclusions in any rolled glass. These inclusions are practically always spherical and brilliant in appearance. The term applies to all such inclusions larger than $\frac{1}{32}$ in. in diameter. The term small bubbles (commonly known as boil) refers to sizes between $\frac{1}{32}$ in. and $\frac{3}{32}$ in.

Seeds—Minute bubbles less than $\frac{1}{32}$ in. in diameter. Fine seeds are visible only on close inspection, usually appearing as small specks and are an inherent defect in the best quality of plate glass. Seeds about $\frac{1}{64}$ in. to $\frac{1}{32}$ in. in diameter are usually considered as coarse seeds.

Open Bubbles—Bubbles which have been broken into by grinding, leaving a hemispherical hole in the glass surface.

Skim—Streaks of dense seed with accompanying small bubbles.

Strings—Wavy, transparent lines appearing as though a thread of glass had been incorporated into the sheet.

Cords—Heavy strings incorporated in the sheet, occurring without any regularity of direction, and appearing to be of considerable thickness rather than on the surface.

Ream—An area of unhomogeneous glass incorporated in the sheet producing a wavy appearance.

Scratches—Any marking or tearing of the surface appearing as though it had been done by either a sharp or rough instrument. Scratches occur on sheet glass in all degrees from various accidental causes.

Short Finish—Insufficient polish or lack of brilliancy; improperly finished surface which has the appearance of being slightly pitted and wavy when the surface is viewed in reflected light. These indentations, which are slight, have a polished rather than a ground surface, but the general effect is a slight dulling of the surface. Poor polish is usually caused by improper grinding.

Stones—Any opaque or partially melted particle of rock, clay or batch ingredient imbedded in the glass.

Fire Cracks—Small cracks penetrating the surface of the sheet. Usually in the shape of short-hooked crescents. Caused by sudden heating or chilling of the surface.

Sand Holes—Rough spots on the polished surface produced during coarse grinding which fine grinding did not later remove; due, to some extent, to coarse grains of grinding sand becoming mixed with finer grades.

Central Area of Sheet—This term is used with slightly different interpretation with reference to plate or window glass. In plate glass the central area is considered to form an oval or circle centered on the sheet whose axes or diameters do not exceed 80% of the over-all dimension. This allows a fairly large area at the corners, which may have imperfections not allowed in the central area.

For complete Architectural Specifications see page Three

BLUE AND FLESH TINTED PLATE GLASS

For Striking Decorative Effects

Flesh Tinted Plate Glass

Flesh Tinted Plate Glass is a medium becoming increasingly popular with architects to assist in obtaining decorative effects. This glass approximates in color the shading commonly found in the skin of a Caucasian person. The color is slight in surface section, considerably stronger in transverse section. Used in mirrors, Flesh Tinted Plate Glass produces reflections which minimize blues and violets and emphasize flesh colors, thus offering flattering images.

Blue Plate Glass

Blue Plate Glass, another popular product of the PITTSBURGH PLATE GLASS COMPANY, is a glass of rich blue color, ideal for decorative use in modern building. Like Flesh Tinted Plate Glass, this Blue Plate Glass is extraordinarily attractive when fabricated into mirrors.

Specific Uses

Flesh Tinted Mirrors or Blue Mirrors can be used with great success in home decoration to add color, warmth and sparkle to all types of rooms. They also are exceedingly ornamental in bars, stores, and public and commercial buildings of all sorts. Both types of Plate Glass also serve very well as unusual table tops, desk tops, book shelves, sill covers, etc.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Selected only	13/64"	123x216	2.67 lbs. [ ]

STRENGTH	COLORS	FINISH
Tension 6500 lbs. [ ] Comp. 36,000 lbs. [ ] Modulus Elasticity 10,000,000	Blue and Flesh	Ground and Polished

HEAVY PLATE GLASS

A Practical Decorative Medium for a Hundred Uses

Heavy Plate Glass is a material that the architect will find particularly helpful in modern design and decoration. Only the architect's imagination limits the possibilities for the effective use of this striking and diffusing material.

Clear, Brilliant, Impervious, Strong

It is clear and affords excellent vision. It has brilliant and mirror-like smoothness of surface which only fine plate glass can offer. It is impervious to moisture, weather, cleaning chemicals, pencil marks and other disfiguring agents. It is easily cleaned. And above all, while possessing the strength that protects and endures, it also lends to the furniture or fixtures in which it is the dominant material a beauty, dignity and modern touch which perhaps no other medium can offer.

Specific Uses

A few of the uses in which Heavy Plate Glass has proved eminently successful are: Book Shelves, Decorative Panels and Partitions, Shower Bath Enclosures, Bank Fixtures (Deal Plates), Glass Roofs, Glass Flooring, Porte Cochere Roofs, Skylights, Semi-enclosed Telephone Booths, Theater Marquises, Valances, Lighting Fixtures, Radio Acoustic Chambers, Refrigerator Doors, Show Cases, Soda Fountain Counters, Aquariums, Aquatic Tanks, Bulkheads, Counter Tops, Table Tops, Modernistic Furniture, Shelves and Mausoleums.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Commercial Selected	3/8" 1/2" 5/8" 3/4" 7/8" 1" 1 1/4"	3/8" to 1/2" 72x160 5/8" to 1" 72x130 1 1/4" 70x130	3/8" 4.93 lbs. [ ] 1/2" 6.58 lbs. [ ] 5/8" 8.22 lbs. [ ] 3/4" 9.67 lbs. [ ] 7/8" 11.52 lbs. [ ] 1" 13.16 lbs. [ ] 1 1/4" 16.45 lbs. [ ]

STRENGTH	COLORS	FINISH
In direct proportion to the square of the thickness	Clear	Ground and Polished

For list of warehouses and map showing warehouses and factories see back cover

SOLEX HEAT ABSORBING PLATE GLASS

Solex is made by a special process which gives it the valuable quality of absorbing heat without interfering with the transmission of visible light. Thus, while it admits 70% to 75% of the sun's total light, it transmits less than 43% of the total solar heat.

Greatly Reduces Sunheat in Rooms

When windows, skylights, etc., of a building are glazed with Solex, the solar heat entering that building through such openings is greatly reduced. Persons sitting adjacent to Solex windows are far more comfortable, and the glare resulting from high light intensity is considerably lessened.

Specific Uses

Solex is well fitted for a wide variety of uses. It may be employed to advantage in southern and western exposures of all types of buildings, whether schools, residences, factories, hotels or office buildings, and will result when so used in greater bodily and visual comfort for building occupants.

In the fabrication of mirrors, Solex has a high decorative value, because of its attractive greenish color.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Glazing only	¼"	123x216	3.29 lbs. [|]

STRENGTH	COLORS	FINISH
Tension 6,500 lbs. [|] Comp. 36,000 lbs. [|] Modulus Elasticity 10,000,000	Bluish Green	Ground and Polished

CRYSTALEX WATER WHITE PLATE GLASS

For Faithful Transmission of Natural Colors

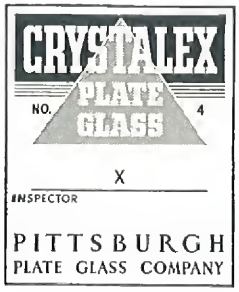
Crystalex Water White Plate Glass was developed primarily for use in multiple-glazing, as in refrigerator cases, and in double-glazing of windows for purposes of insulation and air conditioning. This is the only type of glass so far developed which does not effloresce or "bloom" when hermetically sealed with an air space between two sheets.

Water White Glass, Colorless in Surface and Transverse Sections

Crystalex Water White Plate Glass is a true water white glass, colorless both in surface and in transverse section. Since its transmission value for all the colors of the spectrum is very nearly uniform (88% to 92%), its transmission of the violet and blue light rays is much higher than that of ordinary plate glass. And as a result it is able to transmit very faithfully the natural colors of objects seen through it without changing the relative intensities of the colors, no matter how delicate the differentiation of tone and shade may be.

Specific Uses

Architects will find this glass excellent also for use in display cases of all kinds, and in mirrors where it is desired to obtain as nearly true reflections as possible, such as in dress shop and beauty shop interiors, etc.



Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Glazing	¼"	123x216	¼" 3.29 lbs. [|]

STRENGTH	COLORS	FINISH
Tension 6500 lbs. [|] Comp. 36,000 lbs. [|] Modulus Elasticity 10,000,000	Water White	Ground and Polished

For complete Architectural Specifications see page Three

HERCULITE PLATE GLASS

A Tempered Plate Glass of Great Strength and Shock Resistance

Herculite is polished plate glass which has been specially processed by heat and chilling. It will support a weight four times as great as ordinary plate glass. It will bend four times as far without breaking. Its resistance to impact is 7 to 8 times greater.

Unaffected by Varying Surface Temperatures

Herculite is not affected by varying surface temperatures, being able to stand, without breaking, a temperature of 650 degrees F. on one surface, while the other is at ordinary atmospherie temperature. It resists shocks and impacts as well at 15 degrees below zero F. as at ordinary temperatures.

Shattering Qualities

When Herculite, under terrific impact, *does* shatter, it does not break into sharp fragments like ordinary glass, but disintegrates into innumerable small fragments which are comparatively blunt edged.

Specific Uses

Obviously, the uses of Herculite are almost limitless where strength and safety are important considerations. It proves extraordinarily satisfactory when used for aquariums, cell doors, deck lights, doors, fire screens, flooring, gas cooker doors, glass bottom boats, gauge guards, kitchen equipment, laboratory equipment, partitions, portlights, road traffie signs, shelves, show cases, sight glasses, table and dresser tops, underwater lighting, etc.

HERCULITE
TEMPERED PLATE GLASS
SIZE ——X——
PITTSBURGH
PLATE GLASS COMPANY

Physical Characteristics

QUALITIES	THICK-NESSES	MAX. SIZES	WEIGHTS
Same as glass before tempering	Same as glass before tempering	48x108	Same as glass before tempering

STRENGTH	COLORS	FINISH
Approximately 4 times that of glass of equal thickness which has not been tempered	Same as glass before tempering	Same as glass before tempering

HERCULITE GLASS DOORS

Herculite Tempered Plate Glass is the ideal material for the fabrication of strong, handsome glass doors. It makes possible glass doors of unique beauty, without cross sash. The transparency of Herculite Doors is a powerful selling factor in retail establishments, permitting clear vision into the interior of the shop. The light transmitting values of Herculite Doors make them a great aid to interior lighting. And their unquestioned good looks and smartness dress up any entrance . . . whether to store, public building, office building, theatre, hotel or institution.

Latitude in Design

The strength of Herculite Plate Glass permits the architect a great deal of freedom in the design of Herculite Doors. Heavy frames of metal are not necessary.

A Tested Product

Herculite Doors of all kinds have already been put in use with outstanding success throughout the country, in both exterior and interior installations in all types of buildings.

Decoration and Fabrication

The surfaces of Herculite Glass Doors can be effectively decorated by the usual processes including fused-on colors. But all fabricating, including holes, notches, ete., and all decorating of Herculite surfaces must be done at the factory before the glass is tempered.

For Further Information See Sweet's

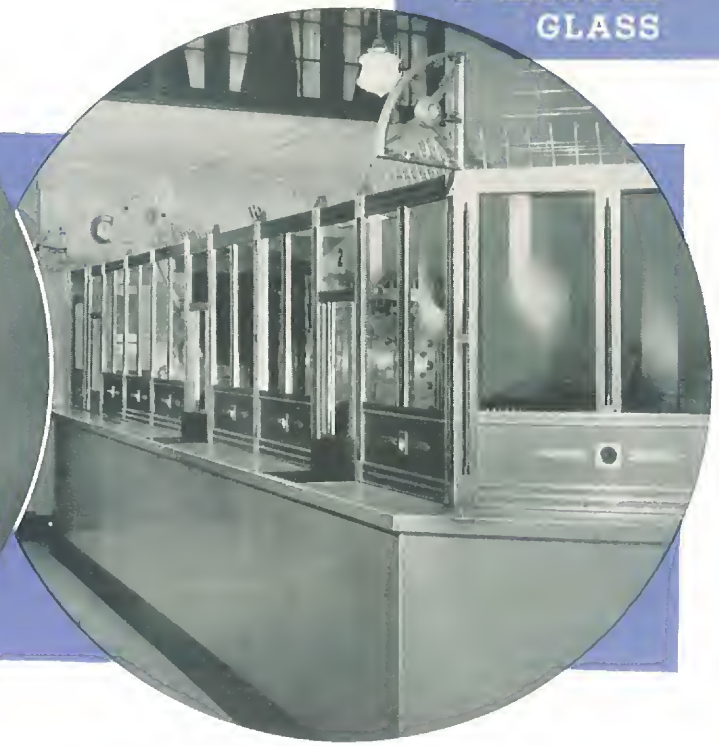
For more complete information about Herculite Doors, and for details showing various types, see Pittsburgh Plate Glass Company's "Herculite Door" pages in Sweet's.

Physical Characteristics

QUALITIES	THICK-NESSES In.	MAX. SIZES	WEIGHTS Lbs.
Selected	¾	48x108	9.67 [|] plus hardware

STRENGTH	COLORS	FINISH
Appr. 4 times that of ¾" glass which has not been tempered	Clear	Ground and Polished

For list of warehouses and map showing warehouses and factories see back cover



X-RAY LEAD GLASS

The Pittsburgh Plate Glass Company now offers a domestic source of supply for X-ray Lead Glass which meets in every respect the requirements of various governmental departments. X-ray Lead Glass was developed primarily to protect operators and their assistants against continuous exposure to X-rays. While affording protection, the glass also allows clear vision of the X-ray apparatus and patient. X-ray Lead Glass may be used both for interior and exterior glazing.

Protection

Protection against very high X-ray intensities may be secured by the lamination of several lights. The single thickness gives protection against X-ray tubes operating under an impressed voltage of 100 k.w.

Lead Coefficient

The actual glass thickness multiplied by the "lead coefficient" gives the equivalent sheet lead thickness. The "lead coefficient" of Pittsburgh X-ray Lead Glass is at least .30.

NO. 1086 DOCUMENT GLASS

No. 1086 Document Glass is a clear canary yellow plate glass developed for the preservation of manuscripts, valuable documents, stamps, and old printed matter of every description. Special ingredients in the glass minimize the harmful effects of those light rays which cause paper and ink to fade and discolor. Architects will find No. 1086 Document Glass especially valuable for designing museums, libraries and buildings of similar types where valuable documents are displayed, and where the display cases form an integral part of the building.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Glazing only	X-Ray 5.35 to 7.35 m/m Document—¼"	40x72	5½ lbs. [ ]

STRENGTH	COLORS	FINISH
Approximately ⅔ as strong as plate glass of equal thickness	X-Ray Golden Yellow Document Canary Yellow	Ground and Polished

SAFETY GLASS

Multiplate Bullet-Resisting Plate Glass

This glass is a laminated plate glass developed by the Pittsburgh Plate Glass Company for use where special protection is required, usually protection against firearms. In a bank, for example, Multiplate protects employees as well as funds and permits them to sound alarms and use defensive arms without fear of injury, in the event of a hold-up or attempted robbery.

Protective Qualities of Various Thicknesses

1⅛ in. Multiplate, called Super Multiplate and the thickness most commonly used, is satisfactory for use against weapons developing not more than 490 ft. lbs. energy. It will withstand from four to ten shots fired at point blank range from the common sidearms, including the .45 caliber revolver, and the .38 Super Automatic. 1½ in. Multiplate, called Hi-Resist Multiplate, is satisfactory for use against weapons developing not more than 804 ft. lbs. energy. It is especially designed to offer protection against the revolver popularly called the Smith and Wesson Magnum Revolver, shooting a special .357 Magnum cartridge. 2 in. Multiplate, called Hi-Power Multiplate, is satisfactory for use against weapons developing not more than 2400 ft. lbs. energy. It is the only glass officially listed for protection against high powered rifle bullets. It will withstand successfully several shots from a standard 30-30 sheriff's weapon, and will even turn back a single steel jacketed service bullet shot from the terrifically powerful 30-06 Army Springfield. It also is recommended as adequate protection against a burst of fire from the Thompson Sub-Machine Gun.

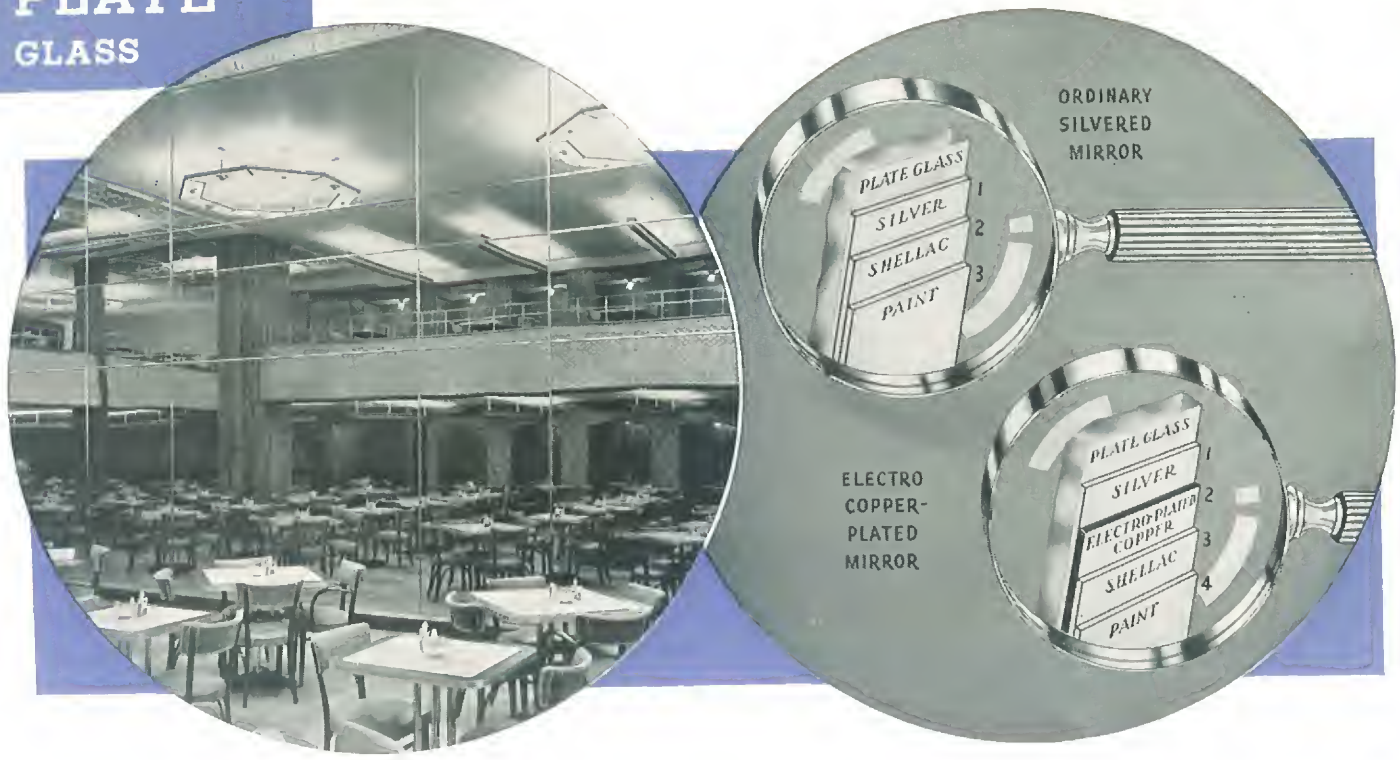
Practically all banks in the United States using bullet-resisting glass standardize on Multiplate. It is regularly checked, tested and listed by Underwriters' Laboratories.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Commercial	½" Minimum	45x84	½" 6.91 lbs. [ ]
	¾" Minimum		¾" 10.30 lbs. [ ]
	⅞" Minimum		⅞" 11.90 lbs. [ ]
	1" Minimum		1" 13.57 lbs. [ ]
	Super 1⅛" Minimum		1⅛" 15.23 lbs. [ ]
	Hi-Resist 1½" Minimum		1½" 21.70 lbs. [ ]
	Hi-Power 2" Minimum		2" 27.11 lbs. [ ]

STRENGTH	COLORS	FINISH
For recommendations of protection against various firearms, see above	Clear	Ground and Polished Plate Glass laminated

For complete Architectural Specifications see page Three



PITTSBURGH MIRRORS

For Every Structural and Decorative Purpose

Pittsburgh Mirrors include mirrors for every architectural need. Whether used structurally in a building, or as purely decorative media, Pittsburgh Mirrors are consistently of high quality and afford superior reflectivity.

Colors and Types Available

In line with the recent trend toward the wider use of mirrors, both structural and framed, and the increasingly important part played by mirrors in design and decoration, the Pittsburgh Plate Glass Company has developed a wider selection of glass colors and mirror backings than ever before. Consequently, the architect and designer can today create new and interesting effects with mirrors.

All Pittsburgh Mirrors are available made from regular polished plate glass. But for the achievement of striking and unusual effects, Pittsburgh Mirrors may also be obtained made from blue, flesh tinted, water white (Crystalex) or green (Solex) plate glass. Furthermore, these various colors of glass may be treated to additional tone mutations by the backing used in fabricating them into mirrors. The regular silver backing is, of course, available, and in addition, a beautiful gold backing, and a smart gunmetal backing.

PITTSBURGH COPPER BACK MIRRORS

Pittsburgh Copper Back Mirrors receive, during manufacture, a coating of copper, electroplated over a heavy film of silver . . . and this copper backing forms an efficient protection against the usual effects of varying climatic and atmospheric conditions. Since these specially protected mirrors retain their beauty and usefulness year after year, their use practically eliminates the need for replacements.

Pittsburgh Copper Back Structural Mirrors

These mirrors are specially fabricated for use with mastic, in order to give maximum service. Structural mirrors differ from other types in that they have an additional protective coating.

Physical Characteristics

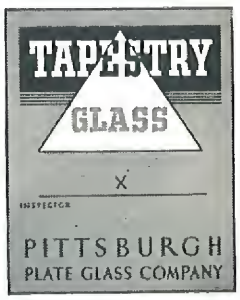
QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Silvering Mirror Glazing Glazing	Fabricated from any thickness of glass	Regular . . . up to maximum glass size Copper Back and Structural. 86x168	Approximately same as plate glass

STRENGTH	COLORS	FINISH
Approximately same as plate glass	Plain, Blue, Flesh, Water While, Blue-Green	Silver, gold or gunmetal backing on any color glass

TAPESTRY GLASS

A Translucent, Semi-Opaque Glass

Tapestry Glass is a product ideally suited for use where the architect desires to glaze in such a way as to admit the light but obstruct the view. Objects placed quite close to the surface of the glass can be seen through it almost as plainly as through transparent glass. But objects decrease in visibility and eventually become entirely shadowed and obscured when they are removed from close proximity to the glass.



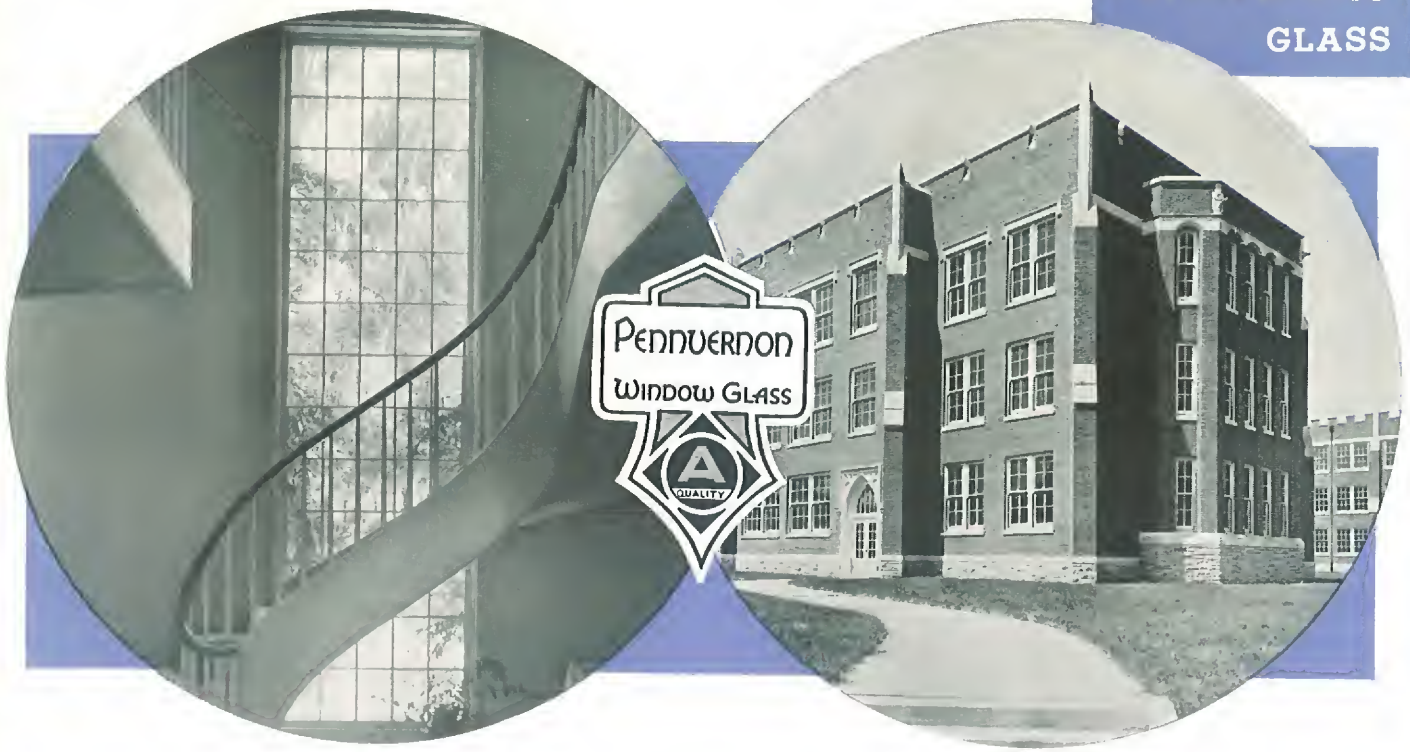
Finish

It is furnished with both surfaces in Tapestry finish or one in Tapestry finish and the other polished, and it can be decorated by sand-blasting, chipping or mitering.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS
Glazing	7/32"	60x144	2.89 lbs. [|]

STRENGTH	COLORS	FINISH
Equal to or greater than that of regular plate glass	Translucent Semi-Opaque	Plain 7/32" Polished 7/32"



PENNVERNON WINDOW GLASS

A Quality Sheet Glass for General Glazing Purposes

Pennvernon Window Glass represents an extraordinarily high development in sheet glass making. This glass is manufactured by a special process, in which it is drawn vertically and held absolutely flat from molten metal to finished sheet. During the drawing process, no rolls or foreign substances of any kind touch the surface of the glass until it has cooled sufficiently to be beyond injury. Consequently, Pennvernon has an unusually brilliant, reflective and unmarred surface finish on both sides of the sheet.

Advantages

Other superior qualities distinguish this fine window glass, too. Because it is made only from the purest and most carefully selected ingredients, it is remarkably transparent and retains its clarity indefinitely.

Pennvernon's durability also recommends it. Because the texture of its surfaces is so smooth, wear and abrasion affect it less than ordinary window glass, and its beauty and utility last longer.

Because of these qualities, architects everywhere find Pennvernon Window Glass the most satisfactory sheet glass to specify.

Qualities

Pennvernon is graded at the factory by experts, in accordance with U. S. Government standards, and a label indicating quality is affixed to each light, as follows:

AA—This is the best quality of window glass obtainable. Because Pennvernon "AA" is higher in quality than is commercially necessary, it is made only on special order and priced accordingly.

A—The highest grade of window glass for commercial uses. Contains no imperfections that can perceptibly interfere with straight vision.

B—Window Glass free from noticeable defects, but containing imperfections which prohibit its being graded as "A" quality.

Greenhouse—A special quality selected to eliminate defects injurious to growing plants. Available in sizes 16x18 in., 16x24 in. and 18x20 in. only.

Heavy Sheet Glass—Available in thicknesses of $\frac{3}{16}$ in. and $\frac{7}{32}$ in. and in AA, A, and B qualities. It is generally specified where weight and strength are required.

Picture Glass—Pennvernon Picture Glass, about 16 oz. in thickness, is a thin glass especially made and graded for picture framing.

Packing

Pennvernon Window Glass is packed with a sheet of special type separator paper between each light to prevent scratching, marring or staining. Lights are then placed in a specially constructed corrugated carton, which is safe and convenient to handle. This carton is inserted for shipment in a sturdy, lightweight wood crate, upon which the Pennvernon trade-mark always appears for easy identification.

Physical Characteristics

QUALITIES	THICKNESSES	MAX. SIZES	WEIGHTS	STRENGTH	COLORS	FINISH
AA-A-B Greenhouse	Picture .063 - .068 Single Strength .087 - .095 Double Strength .118 - .133 Heavy Sheet $\frac{3}{16}$" - .187 to .200 $\frac{7}{32}$" - .212 to .225	Heavy Sheet $\frac{3}{16}$" up to 50 [ ] $\frac{7}{32}$" up to 60 [ ]	Picture 13-14 oz. [ ] S.S. 19 oz. [ ] D.S. 26 oz. [ ] $\frac{3}{16}$" 40 oz. [ ] $\frac{7}{32}$" 45 oz. [ ]	Same as plate glass of equal thickness	Clear	Fire-finished

For complete Architectural Specifications see page Three

Distributing and Manufacturing Facilities of the

Paint • PITTSBURGH • Glass
PLATE GLASS COMPANY

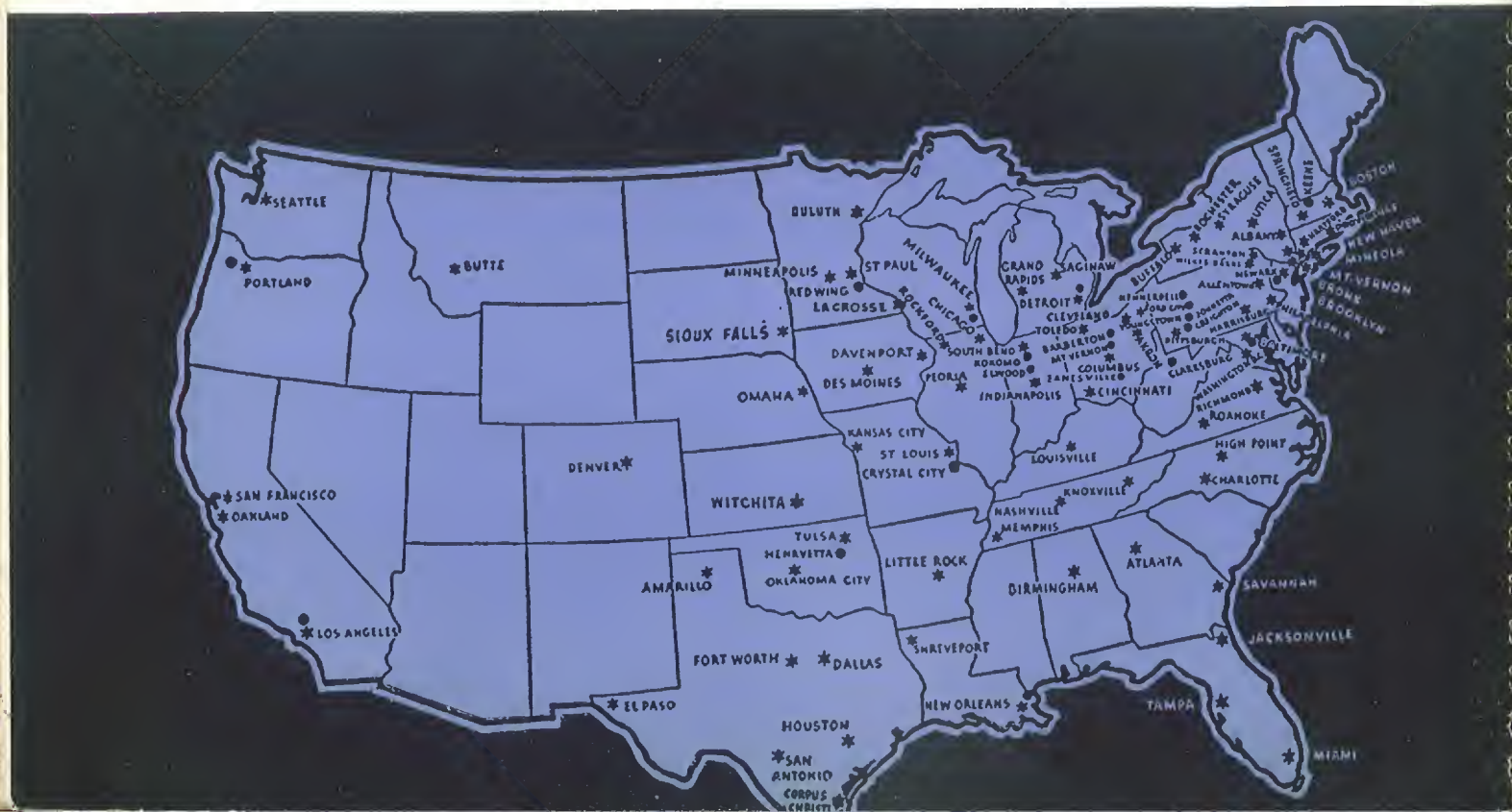
AKRON, Ohio
674 Carroll St.
ALBANY, N. Y.
47 N. Ferry St.
ALLENTOWN, Pa.
827 N. 12th St.
AMARILLO, Texas
720 E. 13th St.
ATLANTA, Ga.
172 Marietta St., N. W.
BALTIMORE, Md.
8 S. Paca St.
BIRMINGHAM, Ala.
912 N. 20th St.
BOSTON, Mass.
390 Babcock St.
BRONX, N. Y.
441 Exterior St.
BROOKLYN, N. Y.
Jay, Water & Plymouth Sts.
BUFFALO, N. Y.
101 Seneca St.
BUTTE, Mont.
840 Utah Ave.
CHARLOTTE, N. C.
201 E. Sixth St.
CHICAGO, Ill.
451 St. Clair St.
CINCINNATI, Ohio
Broadway, Court & Eggleston Aves.
CLEVELAND, Ohio
3849 Hamilton Ave.
COLUMBUS, Ohio
324 E. Second Ave.
CORPUS CHRISTI, Tex.
402 N. Port Ave.
DALLAS, Texas
Santa Fe Terminal Bldg.
DAVENPORT, Iowa
414 Scott St.
DENVER, Colo.
2519 Walnut St.
DES MOINES, Iowa
108 E. Fourth St.
DETROIT, Mich.
6045 Hamilton Ave.
DULUTH, Minn.
302 W. Michigan St.
EL PASO, Texas
1106 E. Overland St.
FORT WORTH, Texas
1825 Main St.
GRAND RAPIDS, Mich.
21 Ionia Ave., S. W.
HARRISBURG, Pa.
611 S. 17th St.
HARTFORD, Conn.
40 Chapel St.
HIGH POINT, N. C.
1 S. Hamilton St.
HOUSTON, Texas
101 Crawford St.
INDIANAPOLIS, Ind.
59 S. State Ave.
JACKSONVILLE, Fla.
601 N. Myrtle Ave.
KANSAS CITY, Mo.
125 W. Fifth St.
KNOXVILLE, Tenn.
207 Humes St.
LA CROSSE, Wis.
712 N. Third St.
LITTLE ROCK, Ark.
112 N. Scott St.
LOS ANGELES, Calif.*
Box S, Florence Branch
LOUISVILLE, Ky.
1601 W. Main St.
MEMPHIS, Tenn.
435 Madison Ave.
MIAMI, Fla.
1200 Biscayne Blvd.
MILWAUKEE, Wis.
820 N. Market St.
MINEOLA, N. Y.
49 Windsor Ave.
MINNEAPOLIS, Minn.
616 South Third St.
MT. VERNON, N. Y.
556 S. Fulton Ave.
NASHVILLE, Tenn.
1102 Grundy St.
NEWARK, N. J.
290 Elizabeth Ave.
NEW HAVEN, Conn.
26 Mill St.
NEW ORLEANS, La.
1500 Poydras St.
OAKLAND, Calif.*
1125 Castro St.
OKLAHOMA CITY, Okla.
101 E. California Ave.
OMAHA, Neb.
1402 Jones St.
PEORIA, Ill.
915 S. Washington St.
PHILADELPHIA, Pa.
3034 N. 16th St.
PITTSBURGH, Pa.
632 Duquesne Way
PROVIDENCE, R. I.
333 Harris Ave.
RICHMOND, Va.
302 Seventh St., S.
PORTLAND, Ore.*
1235 N. W. 15th Ave.
ROANOKE, Va.
14 Pleasant Ave., S. E.
ROCHESTER, N. Y.
362 Exchange St.
ROCKFORD, Ill.
123 S. 3rd St.
SAGINAW, Mich.
103 Fitzhugh St.
ST. LOUIS, Mo.
3900 Chouteau Ave.
ST. PAUL, Minn.
459 Jackson St.
SAN ANTONIO, Tex.
1420 S. Alamo St.
SAN FRANCISCO, Calif.*
1230 Market St.
SAVANNAH, Ga.
Central of Georgia Terminals
SCRANTON, Pa.
823 Wyoming Ave.
SEATTLE, Wash.*
316 Westlake Ave., N.
SHREVEPORT, La.
90 Fannin St.
SIOUX FALLS, S. Dak.
434 N. Main St.
SOUTH BEND, Ind.
1138 S. Lafayette St.
SPRINGFIELD, Mass.
40 Albany St.
SYRACUSE, N. Y.
838 Erie Blvd., W.
TAMPA, Fla.
102 Madison St.
TOLEDO, Ohio
2410 Albion St.
TULSA, Okla.
301 E. Archer St.
UTICA, N. Y.
615 Eagle St.
WASHINGTON, D. C.
4th & Channing Sts., N. E.
WICHITA, Kan.
245 N. Water St.
WILKES-BARRE, Pa.
54 Scott St.
YOUNGSTOWN, Ohio
25 N. Watt St.

*Carrying Pittsburgh Paint Products only

W. P. FULLER & CO., Distributors of glass products of the Pittsburgh Plate Glass Co., have convenient warehouses located in the following cities, with additional store and dealer accounts throughout the Northwest:

Phoenix, Arizona
Tucson, Arizona
Salt Lake City, Utah
Oakland, Calif.
Seattle, Washington
Tacoma, Washington
Spokane, Washington
Sacramento, Calif.
Missoula, Montana
Butte, Montana
Portland, Oregon
Fresno, Calif.
Los Angeles, Calif.
Santa Barbara, Calif.
San Diego, Calif.
San Francisco, Calif.
Walla Walla, Washington
Yakima, Washington

MAP BELOW INDICATED ★ WAREHOUSES ● FACTORIES



PITTCO

STORE FRONT METAL

Paint • PITTSBURGH • Glass

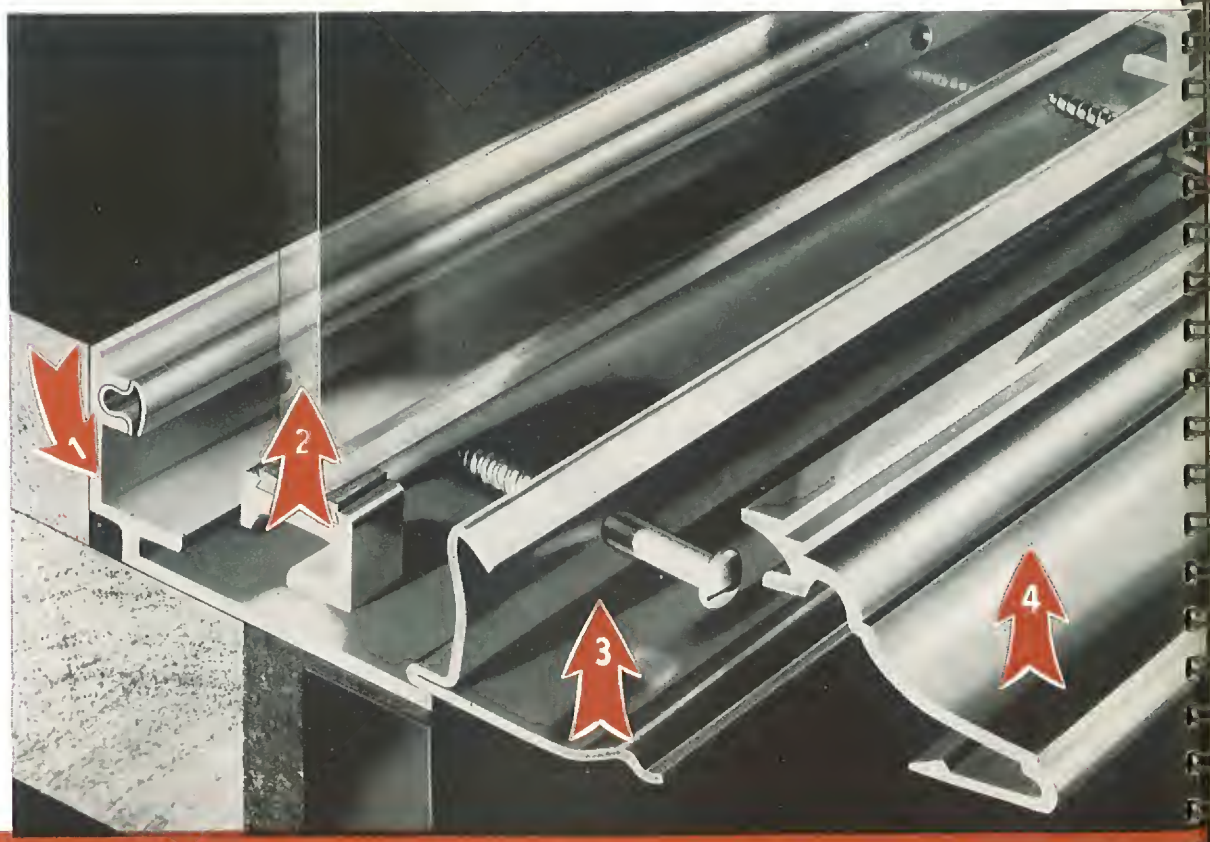
PLATE GLASS COMPANY

PITTCO STORE FRONT METAL

Modern merchandising methods have made the effective display of goods in the retail store window a veritable science . . . with its object the injection of maximum invitation and sales appeal into the modern store front. Of prime importance in designing store fronts of real personality is the metal store front construction. And therefore, as merchandising methods have become more and more aggressive, store front metal construction has grown in importance accordingly. No longer are architects, contractors, merchants satisfied with a metal construction which merely holds the glass . . . their need is for a metal construction which will be beautiful, practical and versatile enough to help them solve their display problems in a modern manner. It was to meet this definite need that PITTSBURGH PLATE GLASS COMPANY, after long research and experimentation, developed Pittco Store Front Metal. It was designed deliberately and all at one time, as a complete line of units to meet every demand which today's store front would make upon a metal construction. It has gained a wide use among leading architects, builders and property owners . . . and has proved eminently satisfactory from every standpoint in all its installations. Here, at last, is store front metal construction truly worthy of use in modern store fronts.

For information on other Pittco Store Front Products, see Pittsburgh Corning Corporation's sections in Sweet's on PC Glass Blocks and PC Architectural Glass; see also Pittsburgh Plate Glass Company's Carrara Structural Glass, General Glass and Pittsburgh Paint catalogs in Sweet's.

SASH SET FROM OUTSIDE



1

First the Inner Member is set; then the setting block (which is actually 2½" long) is pressed into its groove and . . .

2

The glass is lifted into place.

3

Then the glass holding member is installed, and finally . . .

4

The face member snaps on to finish the assembly.

TRANSOM BAR No. 56

MOULDINGS

AWNING BAR No. 60

ABOVE: TRANSOM BAR No. PX117
AT LEFT: VERTICAL BARS
AT RIGHT: TRANSOM BAR No. 44

ARCHITECTURAL ADVANTAGES OF PITTCO

STORE FRONT METAL

BEAUTY . . . Pittco Store Front Metal was designed as a complete line of metal members . . . all at one time. As a result, it has a pleasing unity of design . . . a harmonious relationship between members. It has a style all its own, different, distinctive and refreshing. It is primarily a quality construction, being fabricated from only the choicest materials and finishes.

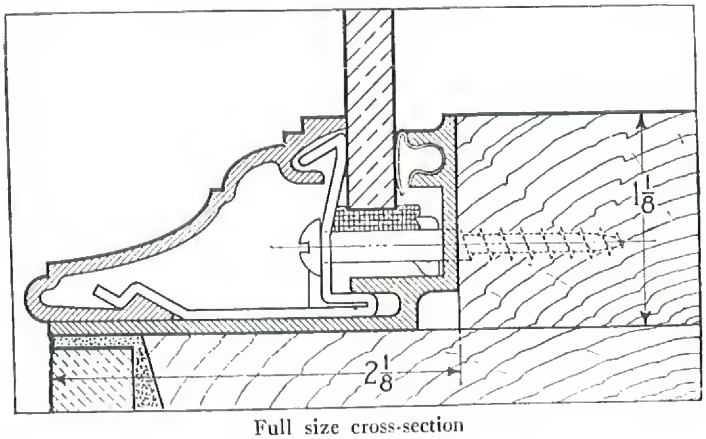
MODERN FINISHES . . . Pittco Metal is furnished in clear, lustrous Alumilite . . . and in Architectural Bronze, Satin or Polished finish. *Caution*: The "Alumilite" finish will be attacked when subjected for any length of time to wet mortar, plaster, whiting, cleaning acids or similar materials. If these materials are immediately removed with a wet sponge or cloth, no attack may occur. It is recommended, however, that the finish be protected during building operations by the use of masking tape or suitable wax to avoid any possibility of disfiguring stains.

ACCURACY and STRENGTH . . . To insure clear-cut mouldings of ample strength and a high standard of workmanship, the extruded process is used in forming exposed Pittco members.

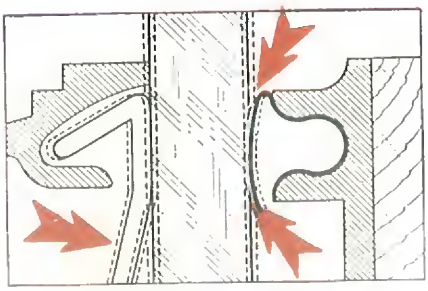
PRACTICAL ADVANTAGES . . . Pittco is as practical as it is beautiful. It is easy to install, all setting operations being carried on outside the window. Its special Cushion-Grip on glass gives the glass it holds greater protection against strains and jars. Rear members of sash and plate glass may be set, the window made ready for display and the face of the building washed down, before outer members of sash are applied. Pittco Sash may be provided with means for drainage when specified. Pittco bars, comprised of only a few mouldings, are readily adjustable to all angles.

EIGHT

DISTINCTIVE FEATURES OF PITTCO STORE FRONT SASH

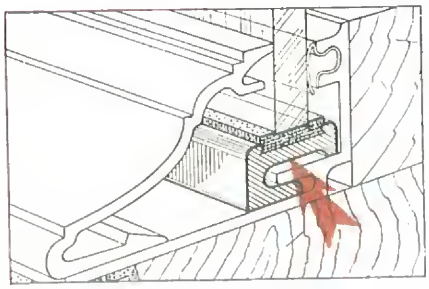


Full size cross-section



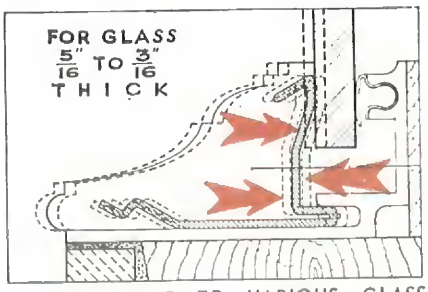
1. CUSHION GRIP ON GLASS

The metal surfaces which contact the sides of glass act as a yielding cushion, absorbing dangerous shocks and jars.



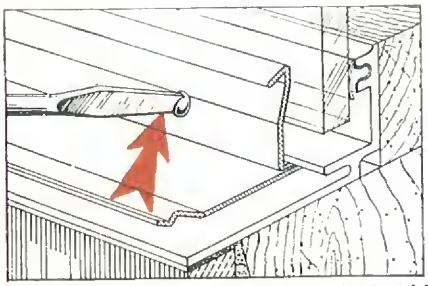
2. FIXED SUPPORTING BLOCK

Non-ferrous metal supporting blocks are firmly wedged in groove, thus preventing tipping, rocking or sliding out of line during setting of glass.



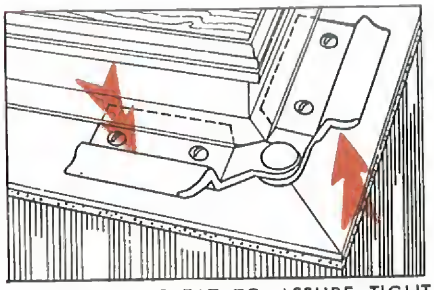
3. ADJUSTABLE TO VARIOUS GLASS THICKNESSES

Glass-holding units and face members are self-adjusting to various glass thicknesses without tilting inward or outward.



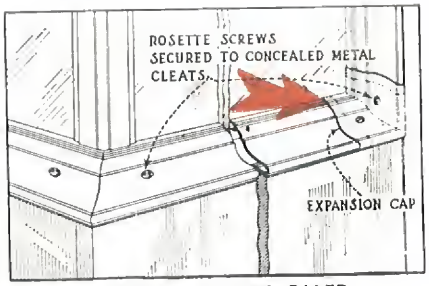
4. INSTALLATION OPERATIONS ALL FROM OUTSIDE

Both glass and sash are set from outside by standard wood or machine screws. No special keys or tools required.



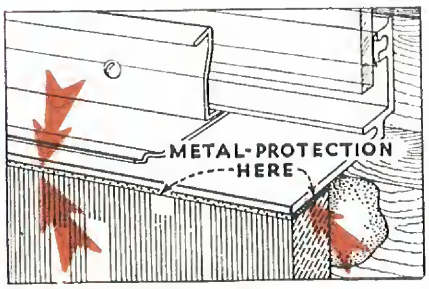
5. CORNER CLEAT TO ASSURE TIGHT MITRE

Heavy Metal Cleats are used at the corners to secure mitres against spreading due to expansion or contraction.



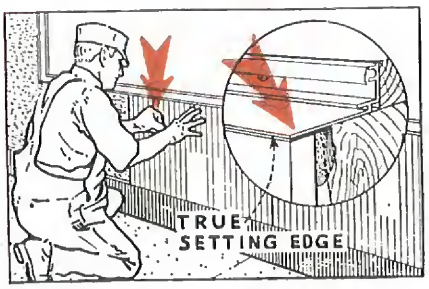
6. EXPANSION IS CONTROLLED

Expansion in long lengths of aluminum is controlled by combining expansion cap, cleats and rosette screws. See also 5.



7. PROTECTION FOR CARRARA

A sturdy, square-cut, continuous metal flange projects over edge of Carrara, shielding the area which is most vulnerable.



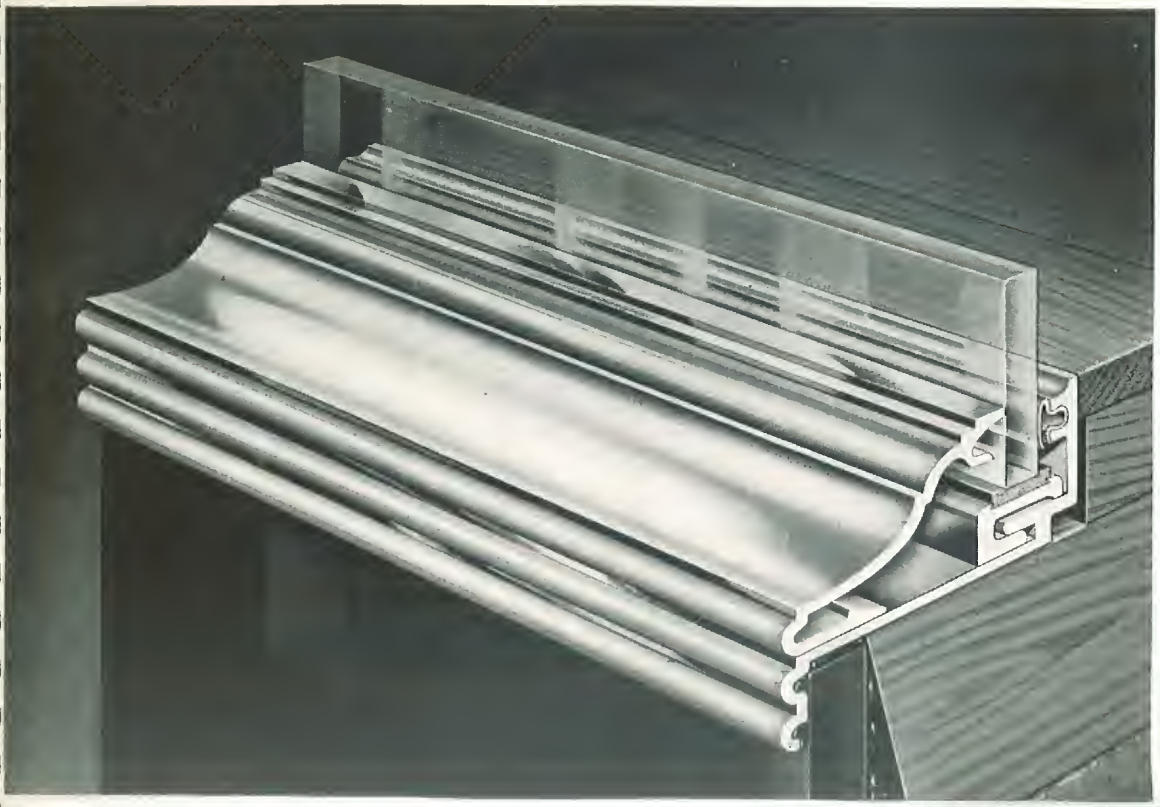
8. TRUE SETTING EDGE

The outer edge of inner member serves as a true, unvarying line to which face of Carrara or similar materials are set.

PITTCO
STORE FRONT METAL

STANDARD PITTCO SHAPES

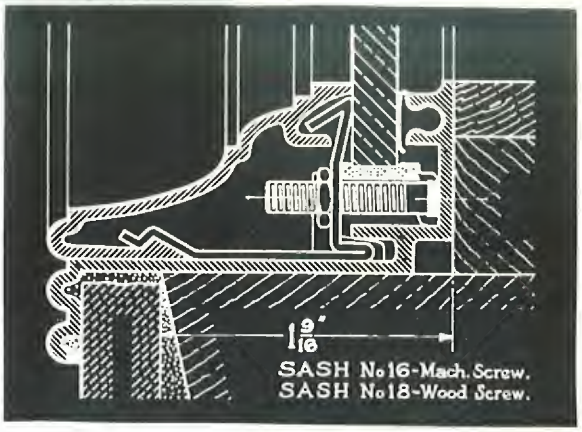
There is a Pittco shape for practically every architectural or decorative need which might arise in connection with store front work. The warehouses of the Pittsburgh Plate Glass Company carry complete stocks of many of these mouldings for prompt shipment, no matter where your job may be located. See back cover for list of branches and map.

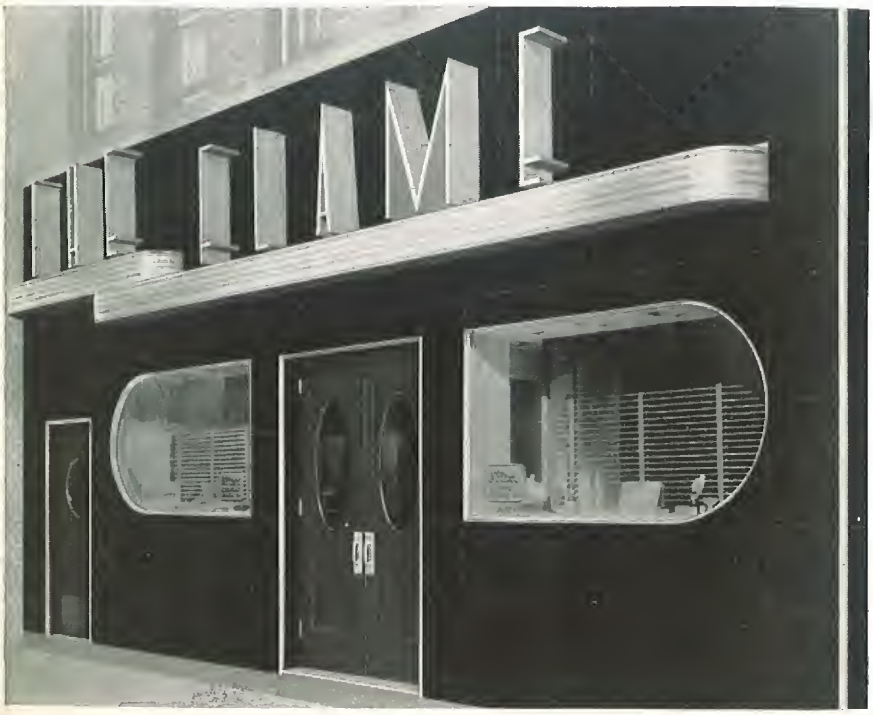


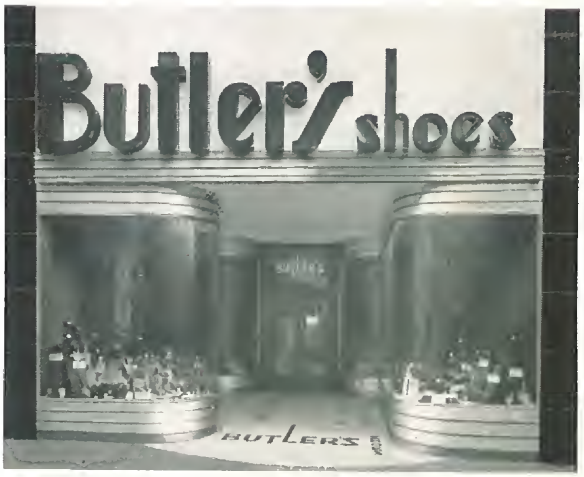
At left and below are shown the new Pittco Sash No. 16 and 18. This new Sash is a valuable addition to the Pittco Metal line for two reasons: first, because the double bead on the face member, combined with the bead on the sash itself, forms a striking and effective frame for the display window. And second, because the manner in which the sash overlaps the Carrara insures even greater protection for the edges of the facing material.

PITTCO-CARRARA GLASS STORE FRONTS

Pittco Store Front Metal was designed for use with Carrara Structural Glass. (See features 7 and 8, page 4.) When so employed, Pittco Metal enhances the richness and distinction of a store front's appearance, harmonizes in perfect fashion with the lustrous, polished surface of the glass facia, bulkheads, etc. The details on pages 7 to 10 of this catalog show various applications of Pittco Metal in connection with Carrara Structural Glass.







Above: Shoe Store in Jacksonville, Fla.

At left: Restaurant in Madison, Wis.

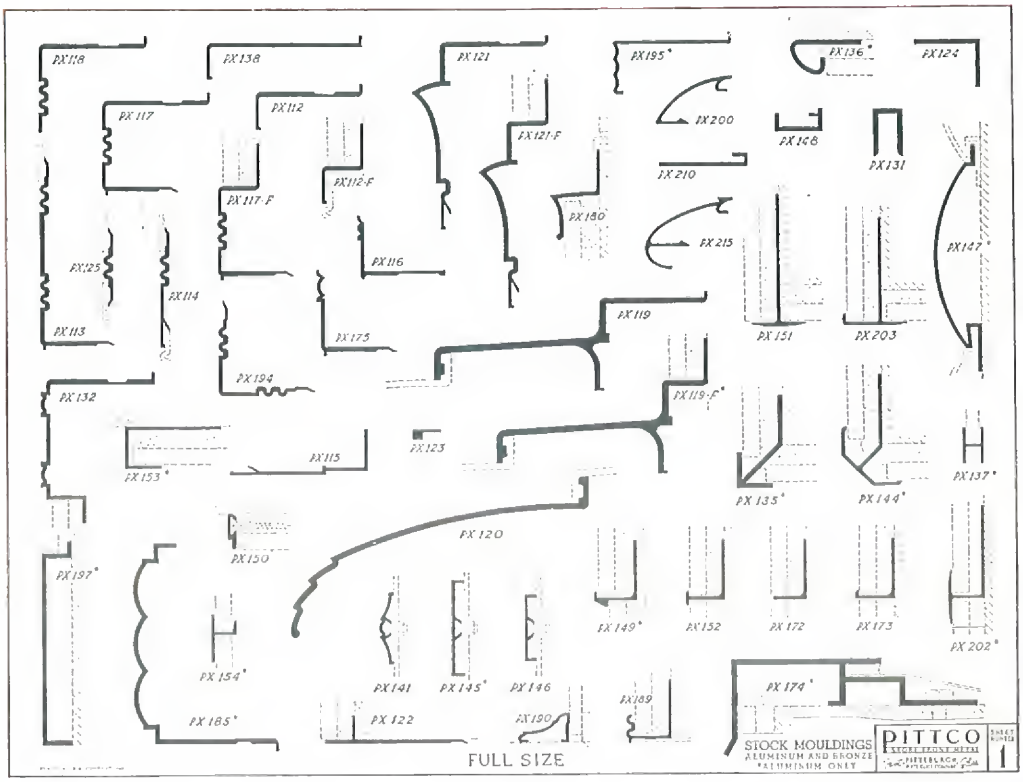
QUARTER SIZE DETAILS OF PITTCO METAL STORE FRONT MOULDINGS

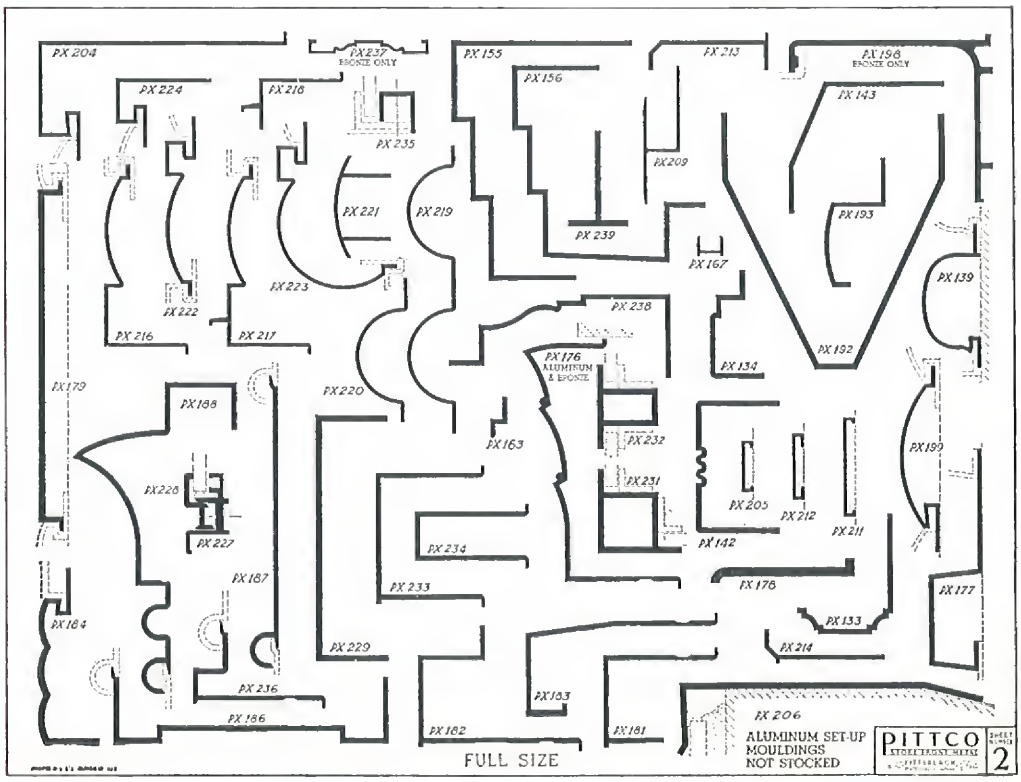
PITTCO
STORE FRONT METAL

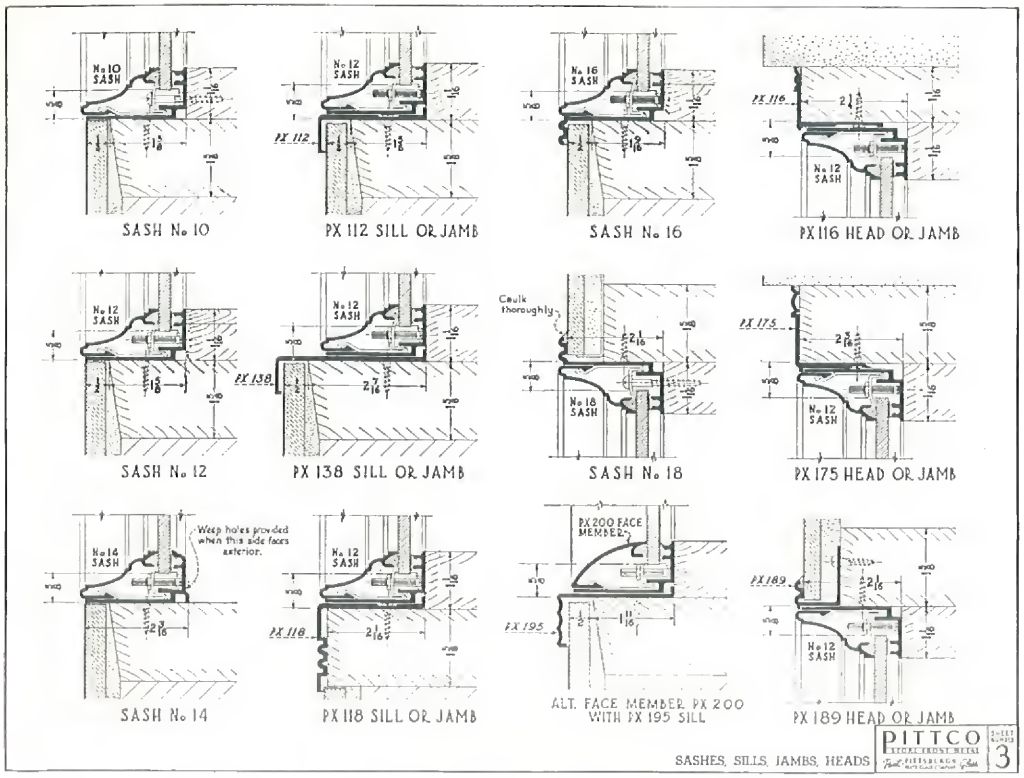
IMPORTANT

There is a Pittco shape for practically every architectural or decorative need in connection with store front designing. The drawings on these pages show the shapes at quarter size. Each shape is identified by a number, and the architect will find the same numbers on the full-size details which are filed under A.I.A. File No. 26-b-1. By cross-reference to the full-size shapes, the designer will be able to visualize the true appearance of any moulding shown on these pages. For finishes, see Page 3.

The warehouses of the Pittsburgh Plate Glass Company carry complete stocks of many of these mouldings for prompt shipment, no matter where your job may be located. See back cover for list of warehouses and map.



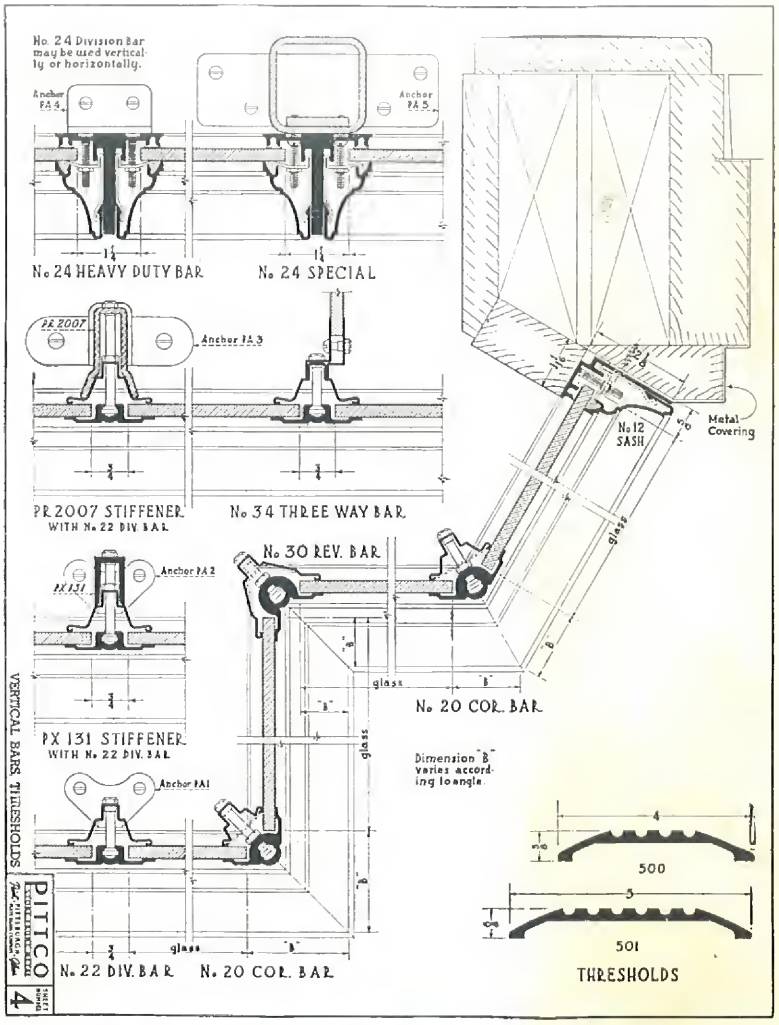




PITTCO
STORE FRONT METAL

Typical cross-sections showing Sash, Sills, Jambs and Heads in connection with Carrara Structural Glass.

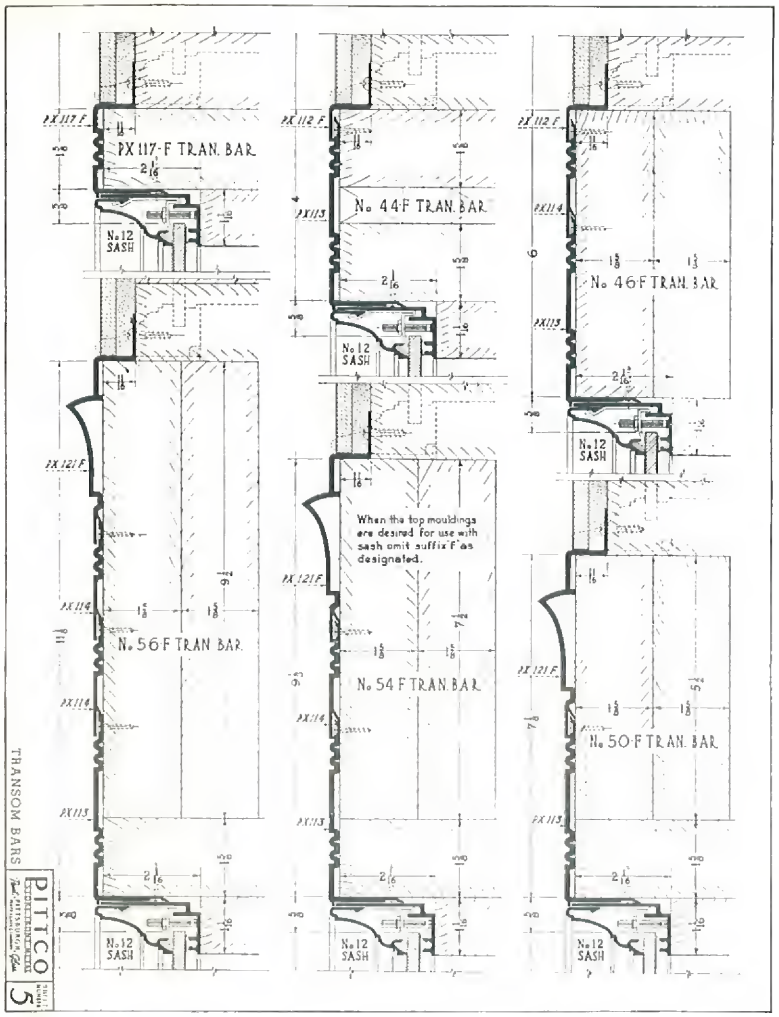
QUARTER SIZE DETAILS



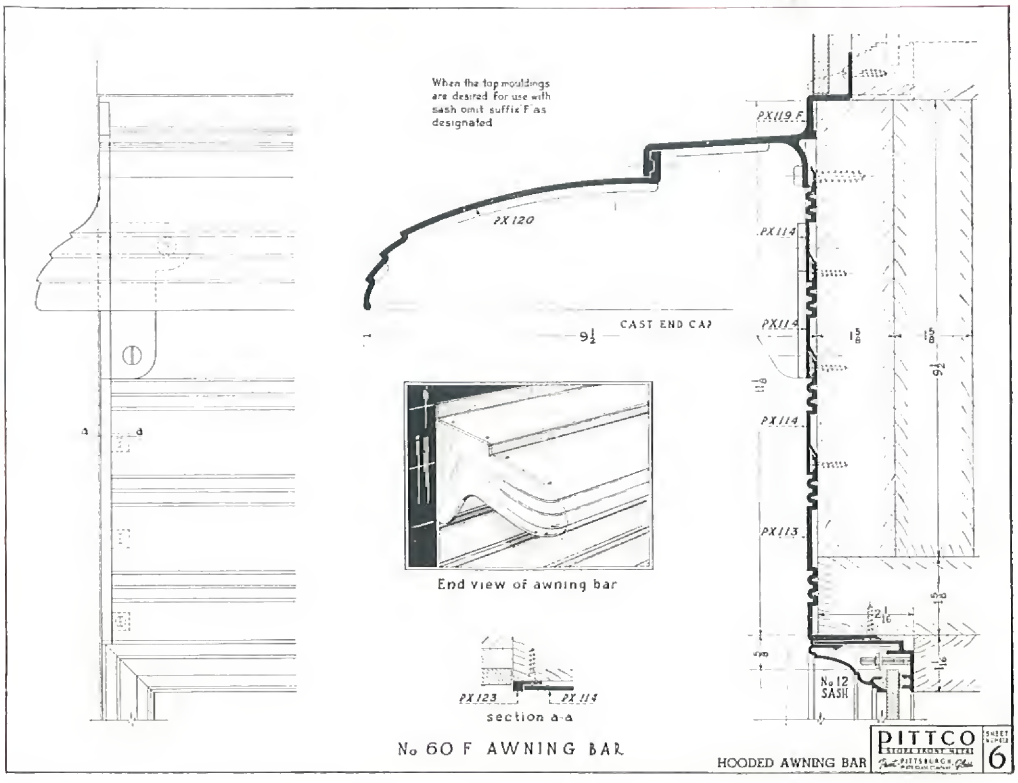
Detail of Pittco Vertical Bars.

QUARTER SIZE DETAILS

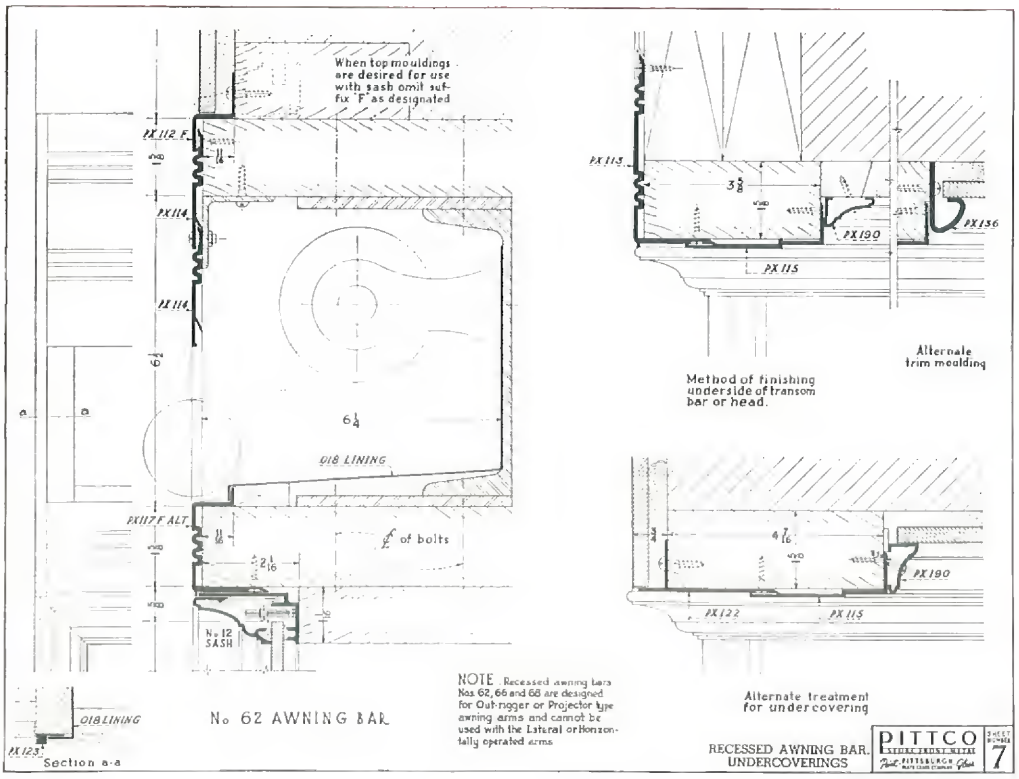
TRANSOM BARS

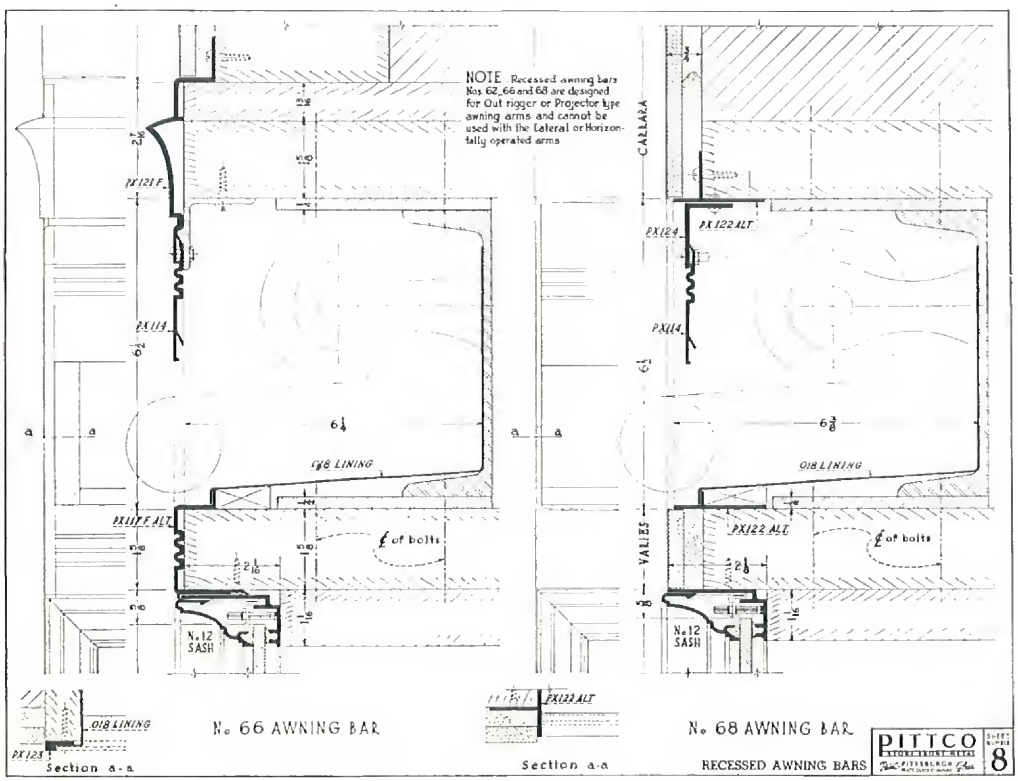


AWNING BARS



QUARTER SIZE DETAILS OF PITTCO METAL STORE FRONT CONSTRUCTION

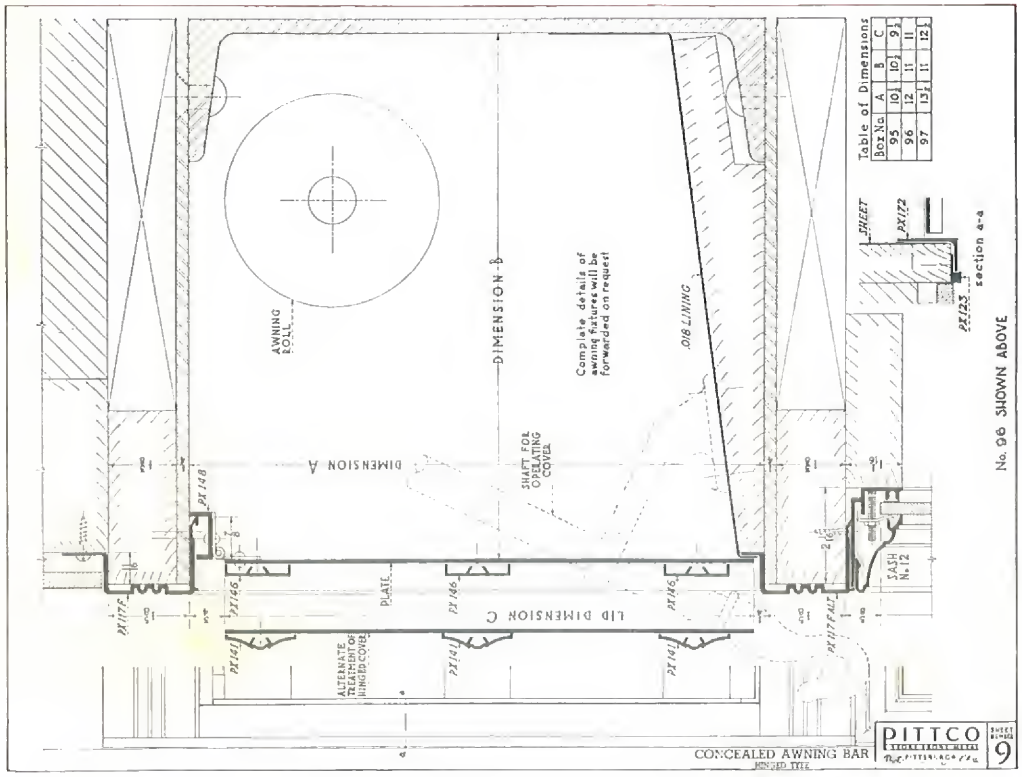




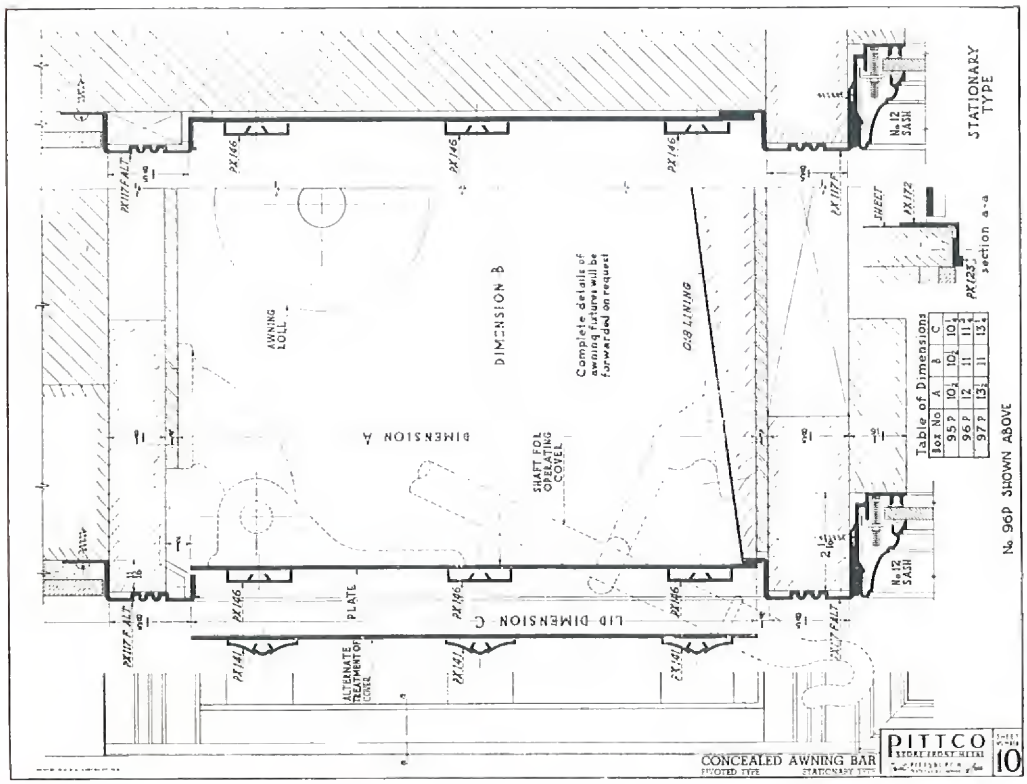
RECESSED AWNING BARS AND UNDER COVERINGS

RECESSED AWNING BARS

QUARTER SIZE DETAILS OF PITTCO METAL STORE FRONT CONSTRUCTION



CONCEALED AWNING BAR



CONCEALED AWNING BAR

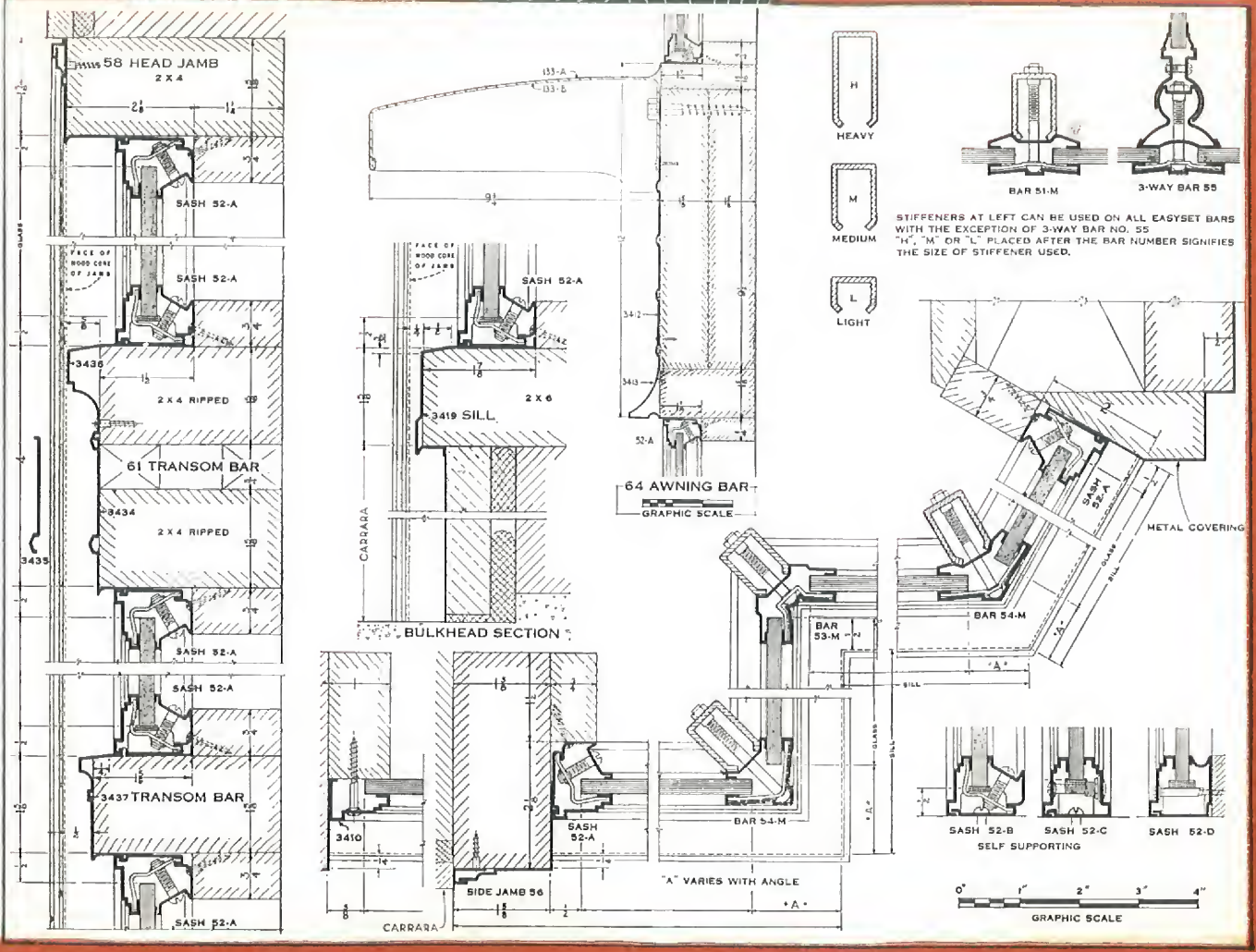
EASYSET STORE FRONT CONSTRUCTION

Above: View of 52-A EasySet Sash and accompanying members.

At right: Full size cross section through 52-A EasySet Sash.

Below: Reduced details of 52-A EasySet Sash and other important units such as jambs, transom bars, corner bars, division bars and sill.

Besides Pittco, we can also supply EasySet, an interesting line of cold rolled construction, in polished aluminum, satin aluminum, alumilite, polished bronze, satin bronze, statuary bronze (light or dark), stainless steel (polished or unpolished).



Distributing and Manufacturing Facilities of the

★ WAREHOUSES ● FACTORIES

AKRON, Ohio
674 Carroll St.
ALBANY, N. Y.
47 N. Ferry St.
ALLENTOWN, Pa.
827 N. 12th St.
AMARILLO, Texas
720 E. 13th St.
ATLANTA, Ga.
172 Marietta St., N. W.
BALTIMORE, Md.
8 S. Paca St.
BIRMINGHAM, Ala.
912 N. 20th St.
BOSTON, Mass.
300 Babcock St.
BRONX, N. Y.
441 Exterior St.
BROOKLYN, N. Y.
Jay, Water & Plymouth Sts.
BUFFALO, N. Y.
101 Seneca St.
BUTTE, Mont.
840 Utah Ave.
CHARLOTTE, N. C.
201 E. Sixth St.
CHICAGO, Ill.
451 St. Clair St.
CINCINNATI, Ohio
Broadway, Court &
Eggleston Aves.
CLEVELAND, Ohio
3849 Hamilton Ave.
COLUMBUS, Ohio
324 E. Second Ave.
CORPUS CHRISTI, Tex.
402 N. Port Ave.
DALLAS, Texas
Santa Fe Terminal Bldg.
DAVENPORT, Iowa
414 Scott St.
DENVER, Colo.
2519 Walnut St.

DES MOINES, Iowa
108 E. Fourth St.
DETROIT, Mich.
6045 Hamilton Ave.
DULUTH, Minn.
302 W. Michigan St.
EL PASO, Texas
1106 E. Overland St.
FORT WORTH, Texas
1825 Main St.
GRAND RAPIDS, Mich.
21 Ionia Ave., S. W.
HARRISBURG, Pa.
611 S. 17th St.
HARTFORD, Conn.
40 Chapel St.
HIGH POINT, N. C.
1 S. Hamilton St.
HOUSTON, Texas
101 Crawford St.
INDIANAPOLIS, Ind.
59 S. State Ave.
JACKSONVILLE, Fla.
601 N. Myrtle Ave.
KANSAS CITY, Mo.
125 W. Fifth St.
KNOXVILLE, Tenn.
207 Humes St.
LA CROSSE, Wis.
712 N. Third St.
LITTLE ROCK, Ark.
112 N. Scott St.
*LOS ANGELES, Calif.
Box S, Florence Branch
LOUISVILLE, Ky.
1601 W. Main St.
MEMPHIS, Tenn.
435 Madison Ave.
MIAMI, Fla.
1200 Biscayne Blvd.

MILWAUKEE, Wis.
820 N. Market St.
MINEOLA, N. Y.
49 Windsor Ave.
MINNEAPOLIS, Minn.
616 South Third St.
MT. VERNON, N. Y.
556 S. Fulton Ave.
NASHVILLE, Tenn.
1102 Grundy St.
NEWARK, N. J.
290 Elizabeth Ave.
NEW HAVEN, Conn.
26 Mill St.
NEW ORLEANS, La.
1500 Poydras St.
*OAKLAND, Calif.
1125 Castro St.
OKLAHOMA CITY, Okla.
101 E. California Ave.
OMAHA, Neb.
1402 Jones St.
PEORIA, Ill.
915 S. Washington St.
PHILADELPHIA, Pa.
30-40 N. 16th St.
PITTSBURGH, Pa.
632 Duquesne Way
RICHMOND, Va.
302 Seventh St., S.
*PORTLAND, Ore.
1235 N. W. 15th Ave.
PROVIDENCE, R. I.
333 Harris Ave.
ROANOKE, Va.
14 Pleasant Ave., S. E.
ROCHESTER, N. Y.
362 Exchange St.
ROCKFORD, Ill.
123 South Third Street

SAGINAW, Mich.
103 Fitzhugh St.
ST. LOUIS, Mo.
3900 Chouteau Ave.
ST. PAUL, Minn.
459 Jackson St.
SAN ANTONIO, Texas
1420 S. Alamo St.
*SAN FRANCISCO, Calif.
1230 Market St.
SAVANNAH, Ga.
Central of Georgia Terminals
SCRANTON, Pa.
823 Wyoming Ave.
*SEATTLE, Wash.
316 Westlake Ave., N.
SHREVEPORT, La.
90 Fannin St.
SIOUX FALLS, S. Dak.
434 N. Main Street
SOUTH BEND, Ind.
1138 S. Lafayette St.
SPRINGFIELD, Mass.
40 Albany St.
SYRACUSE, N. Y.
838 Erie Blvd., W.
TAMPA, Fla.
102 Madison St.
TOLEDO, Ohio
2410 Albion St.
TULSA, Okla.
301 E. Archer St.
UTICA, N. Y.
615 Eagle St.
WASHINGTON, D. C.
4th & Channing Sts., N. E.
WICHITA, Kan.
245 N. Water St.
WILKES-BARRE, Pa.
54 Scott St.
YOUNGSTOWN, Ohio
25 N. Watt St.

*Carrying Pittsburgh Paint Products only

W. P. Fuller & Co., Distributors of glass products of the Pittsburgh Plate Glass Co., have convenient warehouses located in the following cities, with additional store and dealer accounts throughout the Northwest.

Phoenix, Arizona
Tucson, Arizona
Salt Lake City, Utah
Oakland, Calif.

Seattle, Washington
Tacoma, Washington
Spokane, Washington
Sacramento, Calif.
Walla Walla, Washington

Missoula, Montana
Butte, Montana
Portland, Oregon
Fresno, Calif.
Yakima, Washington

Los Angeles, Calif.
Santa Barbara, Calif.
San Diego, Calif.
San Francisco, Calif.

PITTSBURGH PLATE GLASS COMPANY

Grant Building
PITTSBURGH, PA.

For list of Branches and Map, see File Index for Pittsburgh Plate Glass Company General Glass Catalog

CARRARA STRUCTURAL GLASS

Beautiful, Practical and Versatile Material for Modern Design and Decoration

The Product

Carrara Structural Glass is a material which successfully combines beauty, versatility, sanitation, permanence and reasonable cost. It is a glass whose surface is mechanically ground and polished. During manufacture, grinding wheels remove the crude, or fire finish, leaving a homogeneous, uniform structure. The surface thus exposed is then polished, by essentially the same methods as those employed in the manufacture of the finest polished plate glass. This grinding and polishing results in a smooth, mirror-like surface, accurately reflective. A "Suede," or less reflective finish (imparted mechanically) is also available.

Carrara brings to the architect soft color tones that are mellow, distinctive and designed to harmonize with any color scheme. (See color chips on page 7.) Carrara is strong and durable, made to withstand rigorous use both indoors and out. It will not absorb odors of any kind. It is impervious to grease, grime, moisture, chemicals, and pencil marks. It can be easily cleaned by an occasional wiping with a damp cloth. It retains its brilliant luster and perfect mirror-like reflective qualities year after year. It is easy to install. And it is adaptable to so many different kinds of treatment that it offers the architect unlimited opportunities for design.

Structure

Uniform, homogeneous, closeknit, vitrified.

Decoration

Carrara can be beautifully decorated to suit individual tastes. It can be shaded or fluted. It can be sand-blasted with any design desired, bringing the pattern out either in shallow or deep relief. These designs may be further enriched by the application of gold, silver or colors.

Laminated Carrara

Carrara can be laminated by heat and pressure at the factory, assuring a permanent joint, and this laminated Carrara is then handled and set like a single slab. The laminated slab forms the finest type of toilet partitions. By lamination, many original effects may be obtained, such as the combination of two different colors, the building up of Carrara pilasters with reveals and offsets, etc.

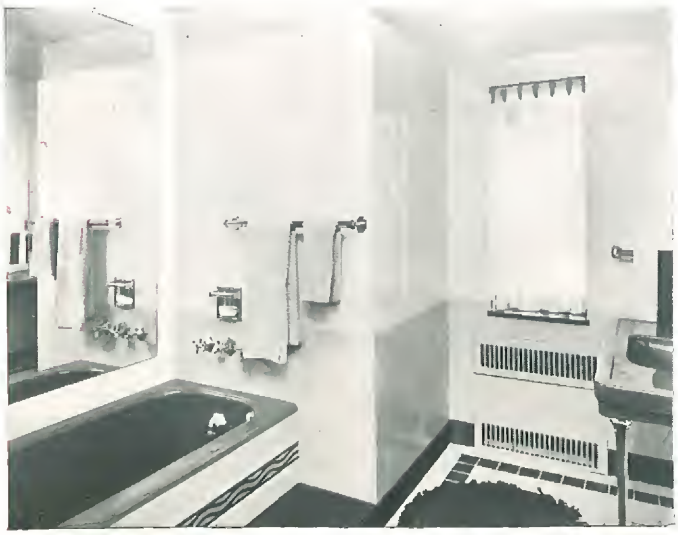
Installation

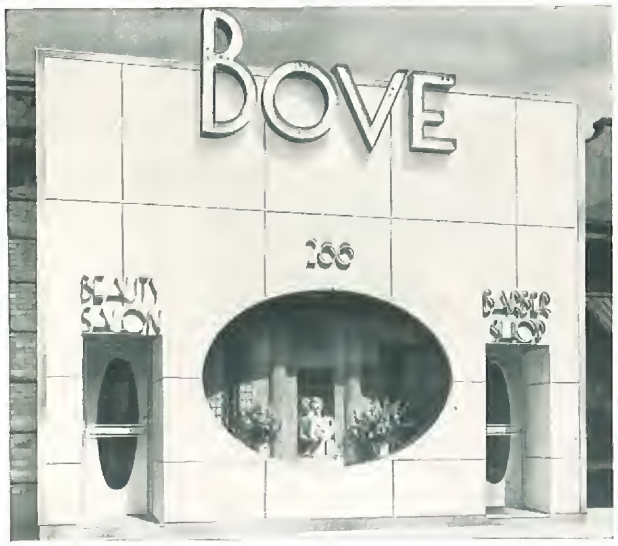
Carrara is easy to install. It is handled similarly to marble. To insure installations being made according to our standards, we maintain our own crews of workmen.

Carrara may be installed over any hard, firm wall surface, but *an allowance should be made for a space of ⅜ in. behind the glass for setting.*

Carrara is installed by means of a plastic cement, which bonds permanently with the glass and the wall—yet allows for settling, shrinkage and expansion.

We provide all hardware necessary for the erection of our material, and will have the slabs drilled for any hardware or fixtures which we do not supply, such as hinges, strikes, etc., provided we are furnished their location and dimensions, so that the drilling may be done at the factory.





Suggested Specifications

This contractor is to furnish all labor, material and service necessary for properly installing all Structural Glass as indicated on the drawings.

Contractor shall verify all dimensions at building, prepare shop drawings and furnish the architect with three sets of prints for approval. Doors, equipment and all hardware not necessary for erection of Structural Glass will be furnished and installed by other contractors. Other contractors will prepare walls, furnish and set wood grounds—also wood blocks for fixtures.

All Structural Glass shall be Carrara as made by the PITTSBURGH PLATE GLASS COMPANY of size and thickness indicated on the drawings. Finish of face of glass to be polished and/or Suede, and all exposed edges polished.

The finish of the face of the glass will be obtained by grinding the surface until a true plane is produced and then mechanically polishing to a high luster or mechanically treating to impart a soft or "Suede" finish. Installation will be made according to the manufacturers' recommendations and to the satisfaction of the architect. This contractor, before setting Structural Glass, shall size the rough wall with an approved type of bond coat.

Mastic cement used, shall be of a type tested and approved by the Structural Glass manufacturer.

All pieces shall be set plumb and true and with even flush joints which shall be filled with an approved type of pointing compound.

This contractor shall do all cutting and drilling of Carrara for other contractors provided they furnish him with accurate layouts so that it may be done at the factory.

At the completion of his work, this contractor shall remove all rubbish not caused by other trades, clean the Carrara and leave it in satisfactory condition.

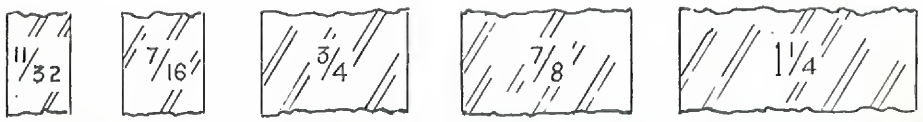
Used with Pittco Metal in Store Fronts

Carrara Structural Glass has been widely used for the construction of modern store fronts, in connection with Pittco Store Front Metal. For information and details of use with Pittco Metal, see PITTSBURGH PLATE GLASS COMPANY's Pittco Store Front Metal Catalog in Sweet's File Index.

Physical Characteristics

Qualities	Thickness	Maximum sizes	Weight	Strength	Colors	Finish
"Perfected" only	Black, White, Jade, Grey, Ivory, 11/32"; 7/16"; 3/4"; 7/8"; 1 1/4" (Black also available 1/4") Beige, Forest Green—11/32" only. Wine, Orange, Rembrandt Blue—7/16" only. See page 7 for colors supplied in various thicknesses	Largest manufactured size 72"x130" Largest recommended size for exterior use —10 sq. ft.—for use above 2nd story height 6 sq. ft.	1/4"— 3.29 lb. sq. ft. 11/32"— 4.5 lb. sq. ft. 7/16"— 5.76 lb. sq. ft. 3/4"— 9.87 lb. sq. ft. 7/8"—11.51 lb. sq. ft. 1 1/4"—16.45 lb. sq. ft.	As great or greater than materials commonly used for same purpose	Standard: Black, White, Jade, Ivory, Grey, Beige, Forest Green Trim: Wine, Orange, Rembrandt Blue	Polished: Mechanically ground and polished to a plate glass surface Suede: A less reflective finish mechanically imparted—11/32" and trim colors only.

Thickness (Actual size)

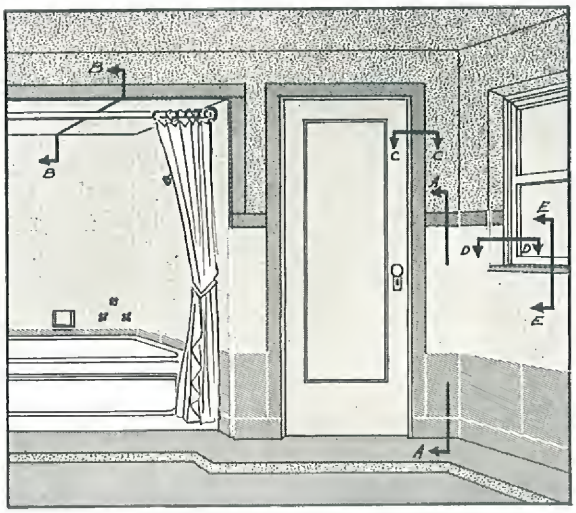


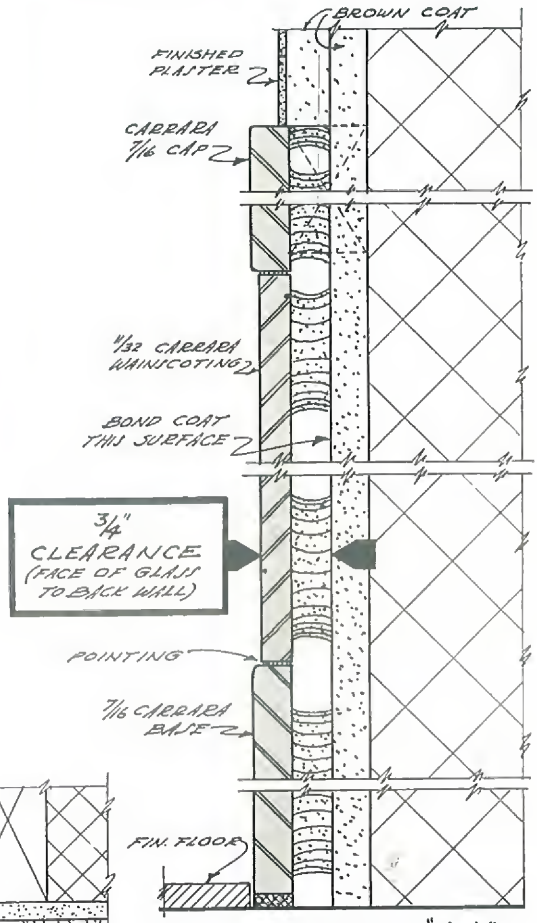
Type and Thickness of Carrara Recommended for Various Members

Ceiling	11/32 in.	Partitions	7/8 in.
Wainscot, Ashlar	11/32 in.	Door and Window Trim	7/8 in.
Cap	7/16 in.	Deal Plates	7/8 in.
Base	7/16 in.	Counter Tops	1 1/4 in.
Store Fronts	7/16 in.	Lintel	1 1/4 in.
Wainscot, Panel	7/16 in.	Stiles	1 1/4 in.
Bulkheads	7/16 in.	Shower Seat	1 1/4 in.

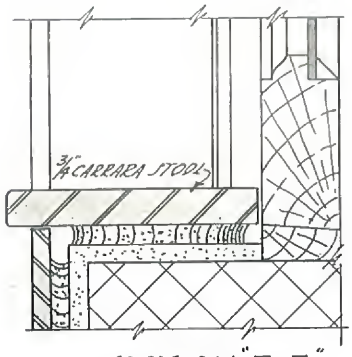
PITTSBURGH PLATE GLASS COMPANY

CARRARA for Interiors

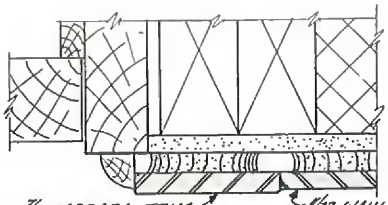




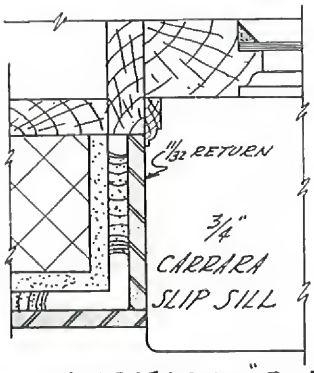
SECTION "A-A"
SCALE 6" = 1'-0"



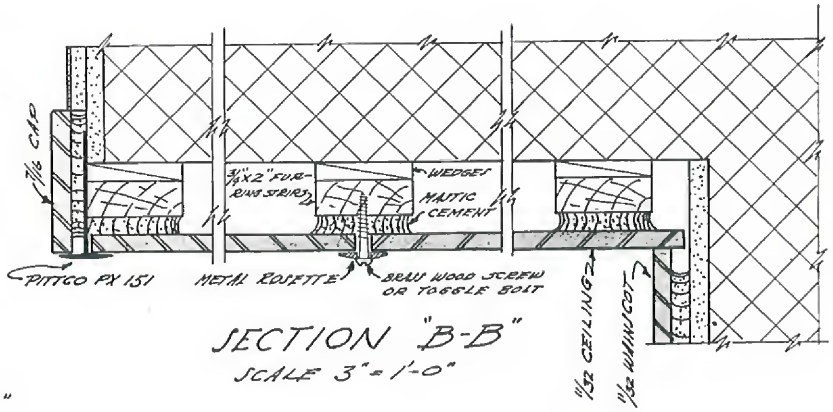
SECTION "E-E"
SCALE 3" = 1'-0"



SECTION "C-C"
SCALE 3" = 1'-0"



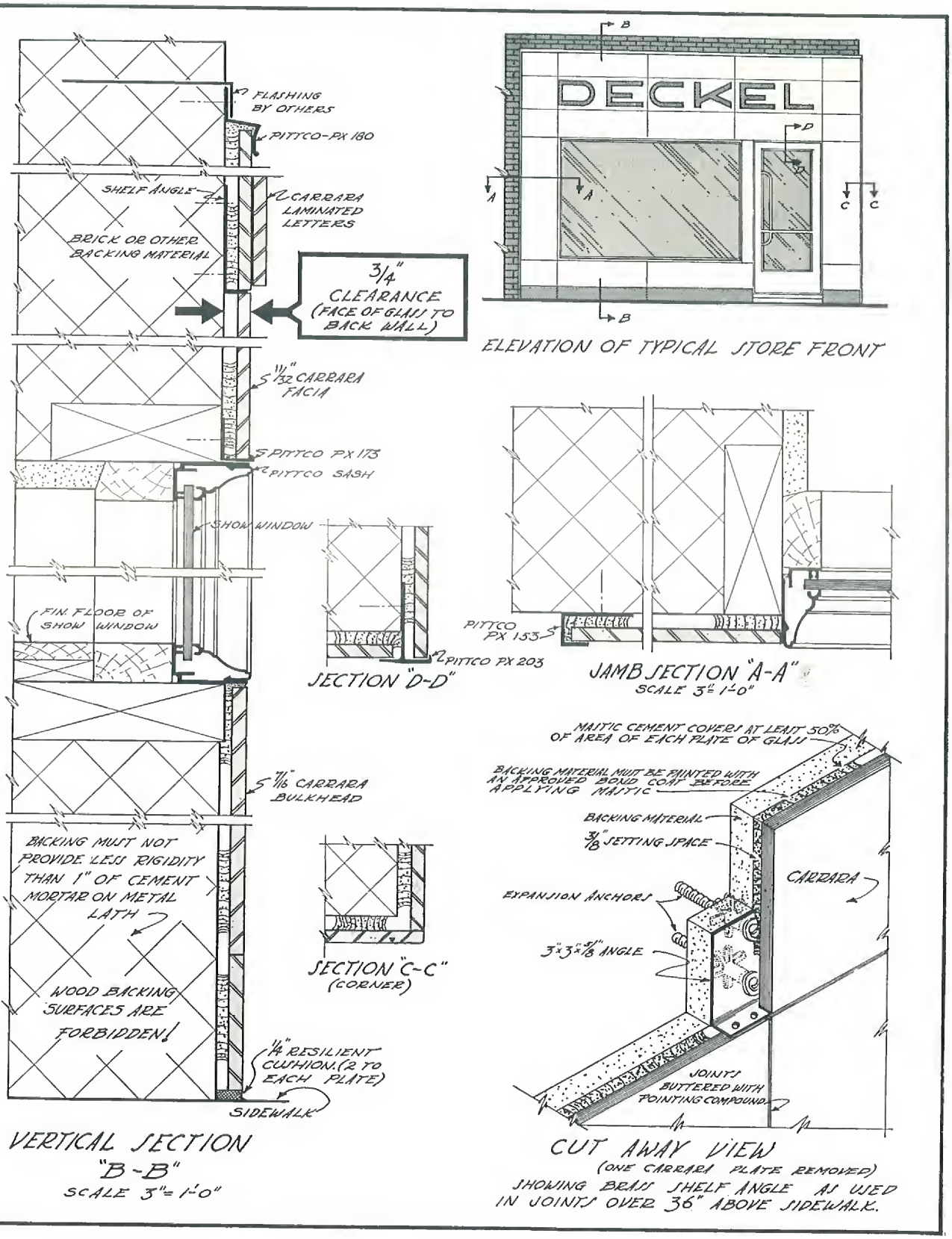
SECTION "D-D"
SCALE 3" = 1'-0"



SECTION "B-B"
SCALE 3" = 1'-0"

Illustrated above are a few typical drawings indicating useful dimensions as well as suggestions for the detailing of Carrara Structural Glass for interior work. The drawings shown are not limited to use in residential bath rooms, but may be applied to all interior construction. The simplicity of this work will appeal to the architect, since nothing special is required as sub-construction, other than a firm, true wall.

CARRARA for Exteriors

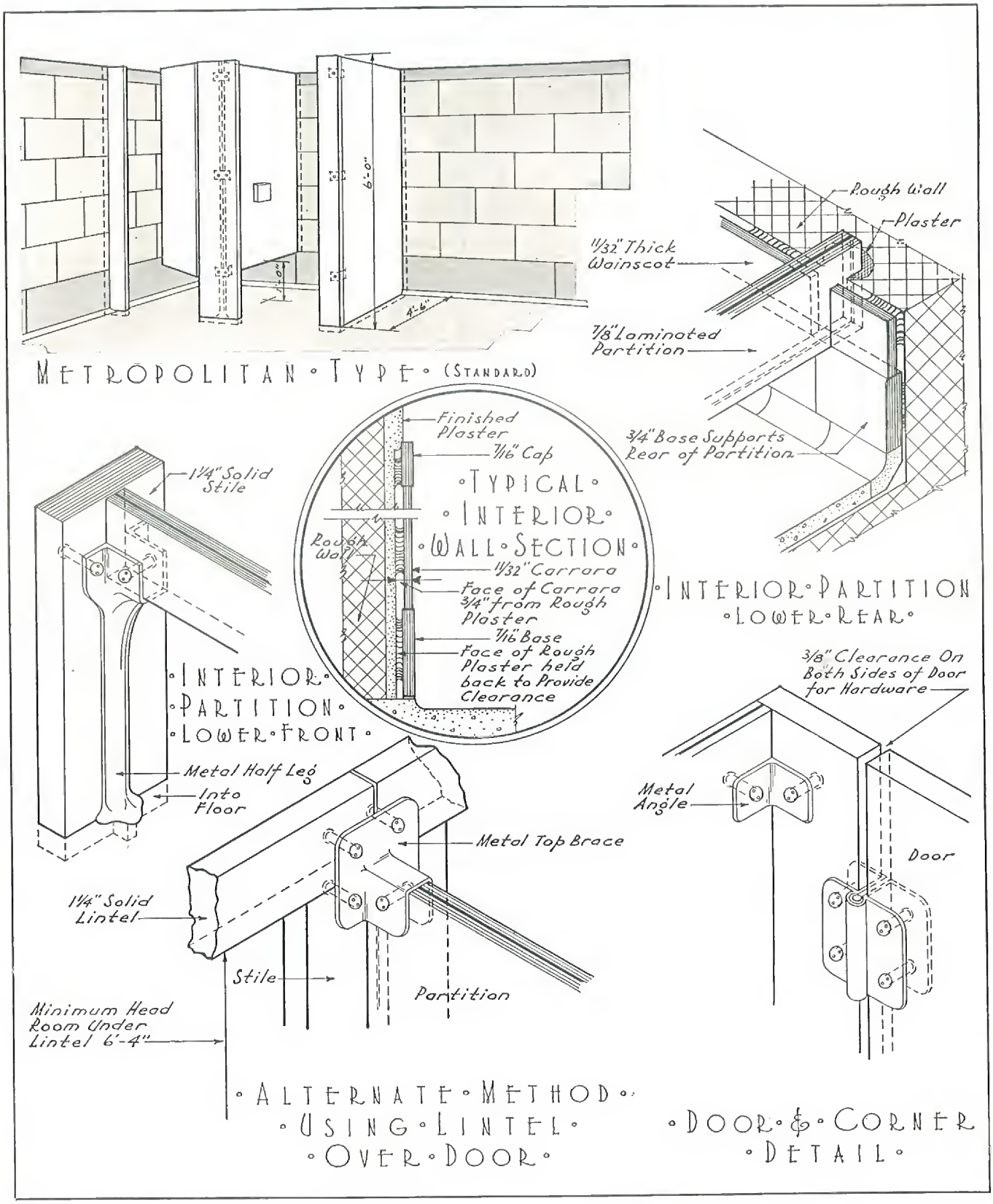


Simplicity of construction and installation is the keynote of structural glass.

The typical store front details shown above can be used by the architect in almost all exterior Carrara work with the assurance that a trouble-free job will be the result. Structural glass as a veneer material can be applied with a mastic cement over almost any firm, true sub-wall. Wood as a backing surface is not recommended for all out-of-door glass construction.

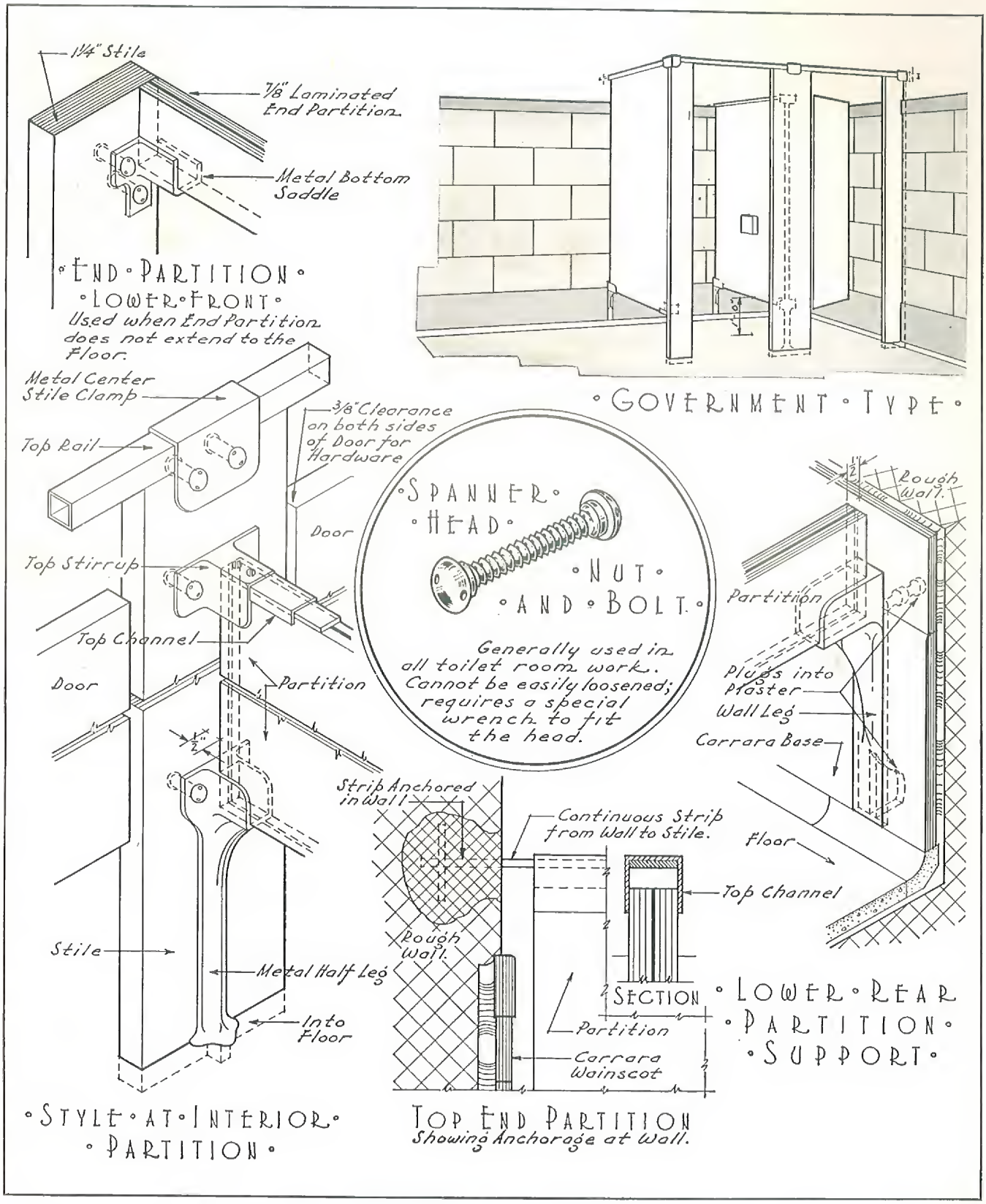
PITTSBURGH PLATE GLASS COMPANY

Toilet Room Compartment Details



The usual or Metropolitan type of toilet compartment construction is illustrated at the left, though it is possible to modify it by use of a lintel as shown in the detail at the lower left corner of the page. Rigidity of construction is obtained by letting the stiles and partitions enter the floor and wall at least ¾" where they are held straight and true with a bond of Plaster-of-Paris. In addition to *ashlar* patterns, Carrara may be laid up in large slabs or other construction.

CARRARA Modern Structural Glass



In the Government type of toilet compartment, partitions are full-floating. This produces a stress-free construction which compensates for any settlement of the building itself. The weight of all interior partitions is supported on metal legs at front and back, while the end partition is supported on a metal leg at the rear, and the front on a metal saddle fastened to the stile. All stiles extend through the finished floor, resting on the rough slab. The use of the metal lintels and the channels over partition tops act as braces that assure a trouble-free installation.

Seven Standard Colors of CARRARA Structural Glass

BLACK ¼", 11/32", 7/16", ¾", ⅞", 1¼"

JADE 11/32", 7/16", ¾", ⅞", 1¼"

GREY 11/32", 7/16", ¾", ⅞", 1¼"

IVORY 11/32", 7/16", ¾", ⅞", 1¼"

FOREST GREEN 11/32" Only

BEIGE 11/32" Only

Three Trim Colors of CARRARA Structural Glass

WINE 7/16" Only

ORANGE 7/16" Only

REMBRANDT BLUE 7/16" Only

Suede finish available in $\frac{11}{32}$" thick standard colors and $\frac{7}{16}$" thick trim colors only

A Few of the Architects Who Have Specified Carrara Toilet Rooms in Two or More Buildings

Architect	Building
Cass Gilbert	Woolworth Bldg.
Cass Gilbert	Union Central Life Bldg.
Cass Gilbert	Detroit Public Library
Cass Gilbert	Prudential Bldg.
Cass Gilbert	New York Life Bldg.
Cass Gilbert	U. S. Chamber of Commerce
Cass Gilbert	U. S. Court House, N. Y. C.
Cass Gilbert	U. S. Supreme Court
Cass Gilbert	U. S. Legation Bldg.
John Russell Pope	Roosevelt Memorial
John Russell Pope	U. S. Archives Bldg.
Holabird & Root	Board of Trade
Holabird & Root	Palmer House
Warren & Wetmore	Ambassador Hotel Annex
Warren & Wetmore	Grand Central Terminal
Warren & Wetmore	N. Y. Central Bldg.
Warren & Wetmore	Commodore Hotel
York & Sawyer	First National Bank
York & Sawyer	Bowery Bank
York & Sawyer	Salmon Tower
York & Sawyer	R. I. Hospital Trust Co.
York & Sawyer	N. Y. Academy of Medicine
York & Sawyer	Union League Club
Shreve, Lamb & Harmon	500 Fifth Avenue Bldg.
Shreve, Lamb & Harmon	Insurance Co. of N. America
Thomas W. Lamb	Albee Theatre
Thomas W. Lamb	Capitol Theatre
Albert Kahn, Inc.	Cadillac Administration Bldg.
Albert Kahn, Inc.	Fisher Garage Bldg.
Albert Kahn, Inc.	Nurses' Home & Ford Hospital

Architect	Building
Albert Kahn, Inc.	S. S. Kresge Administration Bldg.
J. E. R. Carpenter	Lincoln Bldg.
J. E. R. Carpenter	515 Madison Avenue
McKim, Mead & White	University Club, N. Y. C.
McKim, Mead & White	P.R.R. Station, Newark
Graham, Anderson, Probst & White	P.R.R. Station, Philadelphia
Graham, Anderson, Probst & White	Marshall Field Bldg.
Trowbridge & Livingston	J. P. Morgan & Co. Bldg.
Trowbridge & Livingston E. P. Mellon	Mellon Bank, Pittsburgh
Sugarman & Berger	Mercantile Bldg.
Sugarman & Berger	The New Yorker
Cross & Cross	N. Y. Trust Company
Cross & Cross	Stone & Webster Bldg.
Thomas M. James Co.	75 Federal Street, Boston
Thomas M. James Co.	Federal Land Bank
War Department	Hospital
War Department	Hospital
Felheimer & Wagner	Union Station, Cincinnati
Felheimer & Wagner	Erie Passenger Station
Felheimer & Wagner	N. Y. Central Station, Buffalo
W. W. Ahlschlager	State Washington Bldg.
W. W. Ahlschlager	Roxy Theatre
John M. Howells and Raymond M. Hood	Tribune Tower
Howells & Hood and Lockwood, Greene Eng., Inc.	Daily News
Janssen & Cocken	Mellon Inst. of Ind. Research
Janssen & Cocken	Kaufmann's Department Store

A Few Notable Buildings with Complete Toilet Room Installations of Carrara

Building	Architect
State Office Bldg.	Gehron & Ross
Bank of Manhattan	H. Craig Severance, Inc. Yasuo Matsui Associate
Butterick Bldg.	Russell G. Cory
Chanin Tower	Sloan & Robertson
Squibb Bldg.	Buchman & Kahn
Columbia University Library	James Gamble Rogers
New York Times Annex	Ely Jacques Kahn
Union Club	Delano & Aldrich

Building	Architect
Waldorf Astoria Hotel	Schultz & Weaver
Penn Mutual Life Ins. Bldg.	John T. Windrim
Grant Bldg.	H. Hornbostel, Eric Fisher Wood & Co., Associate
Rockefeller Center, New York	Reinhard & Hofmeister, Corbett, Harrison & McMurray, Hood & Foulhioux
U. S. Department of Justice	Zantzinger & Borie

Many United States Government buildings not mentioned above also include Carrara toilet room installations.

PITTSBURGH PLATE GLASS COMPANY

PITTSBURGH, PA.

WAREHOUSES IN ALL NCIPAL CITIES
See General Catalog in Sweet's for List of Warehouses

NUCITE GLASS CHALKBOARD IN COLORS

What Nucite Is

Nucite is a glass chalkboard, made by fusing a colored vitreous material, hardened to resist the abrasion of chalk and eraser, to the face of Polished Plate Glass.

Superior Writing Surface

Nucite's writing surface is unexcelled. It takes chalk easily, providing the maximum in easy writing for students. This excellent writing surface, moreover, is permanent, since the armored surface is practically indestructible. Nucite Chalkboards will not become slick and shiny with use. Chalk will not skip on their surfaces. And the readability of writing will not suffer with extensive use of the boards. Nucite boards never require refinishing or re-surfacing, which means lower maintenance costs.

Scientifically Selected Colors

Nucite Glass Chalkboard is available in three standard colors—green, ivory, and black. For the first time in history, architects are now able to specify superior chalkboards in color, with no fear that their writing surfaces will deteriorate with age. The green and ivory shades of Nucite were selected only after extensive research into the light-reflection, visual and glare factors of various colors. Recognized color and lighting experts contributed data and suggestions.

Promotes Better Lighting

Nucite colors are scientifically designed to promote better school lighting and, consequently, to lessen eyestrain for students using Nucite Chalkboards. The Nucite colors minimize glare, as illustrated by this experiment: samples of Nucite and other chalkboards were subjected to accelerated wear tests, equivalent to from 15 to 17 years of hard usage under normal conditions. Specular reflection readings were taken on these samples, and the readings proved that Nucite, after 15 years of use, showed practically no signs of wear.

Easier Erasure

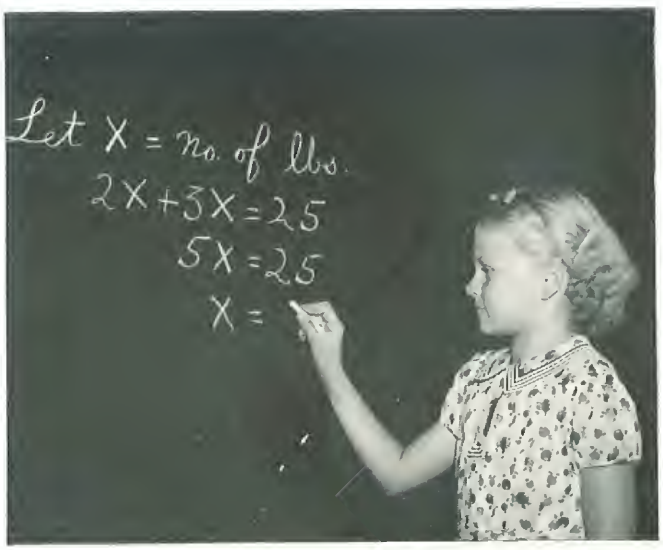
Nucite Glass Chalkboards afford easy, quick erasure. Where a hard, thorough scrubbing is usually necessary to prepare ordinary boards for subsequent writing, Nucite can be quickly and easily cleaned by the eraser. This is true of all Nucite colors.

Strength and Shock Resistance

Although composed of glass, Nucite Chalkboards are strong, tough and remarkably resistant to shocks. The process which fuses the writing surface of Nucite to the Plate Glass base gives the entire structure far greater resistance than ordinary glass of the same thickness.

Non-Absorbent, Impervious

Being glass, Nucite boards are non-absorbent, impervious to moisture. They can be washed as often as desired without harm. The binder in chalks, which tends to fill up the pores in ordinary boards and cause unpleasant blackboard odors, cannot cling to Nucite—because it has no pores, being glass. Nucite is odorproof and practically stainproof.



Varied Uses

Besides its common use as a writing surface for students, Nucite boards also serve exceptionally well as "canvas" for chalk work in art classes. It is also ideal for water color painting, since Nucite can be washed as often as desired. Furthermore, the ivory Nucite Chalkboard makes a splendid moving picture screen.

Installation

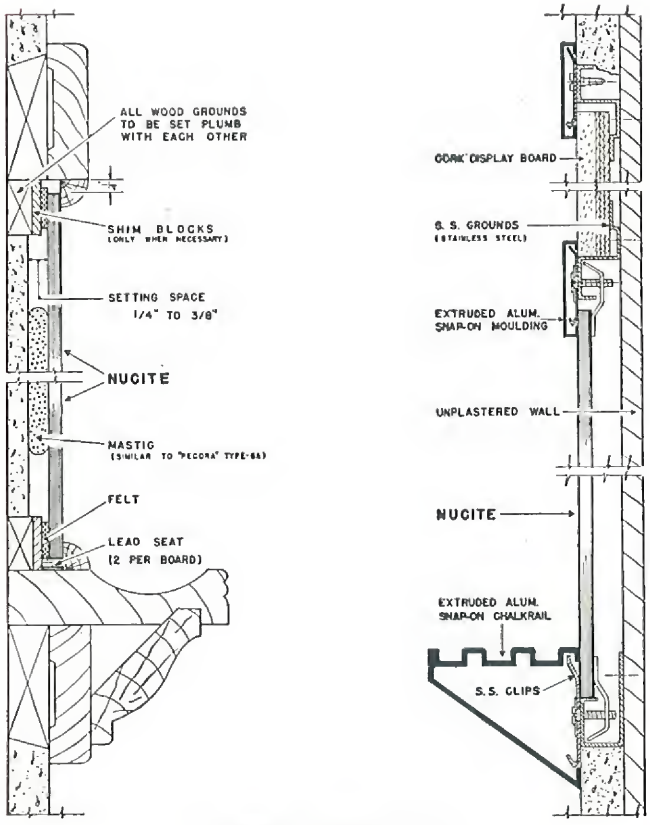
Nucite is just as easy to install as other types of chalkboard. It cannot, however, be cut or drilled on the job, due to the fusing process employed in its manufacture. All dimensions and desired fabrication should be shown on orders so that all such work can be done at the factory before shipment is made.

Cost

Nucite is slightly higher in price than ordinary chalkboards, but its many advantages more than warrant the difference. It is possible to obtain certain other colors of Nucite Glass Chalkboards in addition to the standard shades of black, green and ivory, but such special colors command a premium price, and information concerning them will be furnished only on request.

General Information

Sizes, minimum—4 x 4 in.; maximum—48 x 90 in.
Thickness, ¼ in. plus or minus $\frac{1}{32}$ in. tolerance.
Weight, approximately 3.32 lbs. per sq. ft.
Shipping weight. 5.75 lbs. per sq. ft.



Nucite Installation Detail

Specifications

General Conditions—The "General Conditions" of this contract are a part of this specification.

Scope of the Work—Furnish and install all chalkboards (blackboards) shown on drawings and specified hereinunder.

The blackboard contractor shall install Nucite chalkboards strictly in accordance with the architect's details, which are a part of these specifications.

Materials—All chalkboards (blackboards) herein specified or indicated on drawings shall be Nucite chalkboards as manufactured and distributed by Pittsburgh Plate Glass Company and shall be furnished in ....., ..., ... (specify color or colors—standard colors are Green, Ivory and Black). The manufacturer shall identify the chalkboard with a Nucite label placed in the lower right-hand corner.

The chalkboards shall be made of ¼-in. plate glass, onto the surface of which has been fused a colored vitreous material impregnated with an abrasive throughout its entirety. The nature of said surface shall be such that it shall resist wear, shall not chip, and shall retain its original color and writing and erasing qualities, without fading or becoming glossy or shiny.

Workmanship—All pieces shall be set plumb and true with even flush joints. Where abutting joints occur in chalkboard sections, those edges of glass shall be finished square and true and are to be fitted together as closely as possible. The joints shall be cushioned with a material approved by the chalkboard manufacturer.

At the completion of the work contemplated under this contract, this contractor shall thoroughly clean the chalkboards and leave his work in neat, orderly and acceptable condition. This contractor shall remove only the rubbish directly applicable to his part of this contract.

Personal inspection of the job by the owner or agent of the owner with a representative of this company is requested, at the completion of the contract.

PITTSBURGH PLATE GLASS COMPANY

Grant Building, PITTSBURGH, PA.

For Branches see Pittsburgh Plate Glass Company General Glass Catalog

For Other Pittsburgh Products, see Sweet's File Index

HERCULITE GLASS DOORS

Herculite Doors, with Herculite Side Panels, Pleasingly Decorated
JOHN M. HATTON, Architect

With the development of Herculite Tempered Plate Glass, possibilities for designing exceptionally smart, modern doors of transparent glass were tremendously broadened. The good looks of polished plate glass, combined with the great strength achieved through tempering, make Herculite Doors thoroughly attractive and practical.

Strength and Shattering Qualities

Herculite Glass is, mechanically, 4½ to 5 times stronger than plate glass of the same thickness. Therefore, Herculite Doors are able to withstand far harder usage than normal plate glass doors. Herculite Doors, however, are breakable under excessive conditions, as for example, when repeated blows of a sharp instrument strike the glass in the same spot. But when a Herculite Door breaks, it cracks into small, cubical fragments resembling rock candy, and not into jagged splinters.

Unaffected by Varying Surface Temperatures

Herculite Doors are not affected by varying surface temperatures. The glass does not become brittle in cold weather. Its resistance to impacts is as great at sub-zero temperatures as at normal temperatures.

Specific Uses

Obviously, the fine appearance and practical qualities of Herculite Doors fit them admirably for use in practically all types of buildings. Stores, banks, hotels, theatres, hospitals, office and public buildings, find Herculite Doors ideal from the standpoint of both beauty and usefulness. This is especially true where a sturdy, transparent door or bank of doors at the entrance to a store or building is a definite factor in attracting and holding public attention.

GENERAL INFORMATION

Builders' Hardware

Except for the bronze fittings or attachments, which are prerequisite, and which are an integral part of the Herculite Door, absolutely no builders' hardware of any kind is furnished. Exactly the same types and kinds of builders' hardware would be used with the Herculite Door, as would be used with normal bronze doors or other similar installations.

Insurance

Arrangements are in progress with the proper authorities, in order that a definite schedule of Herculite Door insurance rates may be established and become available through various insurance agencies. At the moment, Herculite Doors carry the classification "C" at local zone rates for such doors.

Finishes

The following four finishes are available in the fittings supplied with the Herculite Door: Brushed Bronze (U.S. 10); Polished Bronze (U.S. 9); Polished Chrome-plated Bronze (U.S. 26); and Brushed Chrome-plated Bronze (U.S. 26D).

Shipping Dates

Normally, three weeks will be required from the date of receipt of an order for Herculite Doors at the factory, before shipment of the doors can be expected.

CONSTRUCTION DETAILS

Dimensions

Herculite Doors may be of any size up to 48 x 108 in., depending upon the architect's design. Dimensional tolerances on Herculite Doors are plus 0, minus $\frac{3}{32}$ in.

Fittings

(1) Locks and Strikes—Special locks and strikes have been manufactured for Herculite Doors. Lock S-010 (see opposite page) has cylinder lock on both sides of door. Part S-011 (see opposite page) is the strike.

(2) Door Pulls, Push and Pull Bars—Door pulls should be of tubular type for lightness. Where pull or push bars are required, one or more holes must usually be drilled through the door at the factory, for their attachment. Exact location of these holes must be specified. In general, pull or push bars should be approximately 42 in. above bottom edge of door. Push and Pull Bars, etc., must be procured from manufacturers of these items.

(3) Flush Bolts—Settings with flush bolts may be provided. Where a single door only is involved, the flush bolt housing S-07 (see opposite page) will be arranged so that bolt may be operated from face of door. Where double doors, swinging together are involved, the operating mechanism of the flush bolt will be arranged to be in the edge of the door. The correct S-07 setting desired must be specified.

(4) Butt Hinges—No provision has been made to hang Herculite Doors with butt hinges, because of the excessive difficulties involved.

Additional information on fittings mentioned above is available from PITTSBURGH PLATE GLASS COMPANY.

Special Fabrication

(1) Holes—Must be at least ⅞ in. in diameter. Nearest edge of any hole must be at least 3 in. from any nearest edge of plate, and at least 4½ in. from tip of any corner.

(2) Cut-outs and Notches—All notches and other cut-outs must have corner fillets, the radius of which must be equal to the thickness of the glass.

(3) Sandblasting—Sandblasted decorative designs may be cut into the glass before tempering to a depth not to exceed $\frac{1}{32}$ in., regardless of glass thickness. Sandblasting reduces strength of Herculite by one-half.

ERECTION DETAILS

Contractors

Any thoroughly competent contractor, acquainted with the setting of any other type of door on pivot hinges, should be qualified to set Herculite Doors. A growing number of competent bronze and other contractors are already prepared to contract for the installation of Herculite Doors complete.

Frames

In general, the door frames into which Herculite Doors are intended to fit should preferably be of bronze or some other similar metal. Where wooden frames are used, satisfactory anchorage for the various pivot hinges and similar equipment must be incorporated in the door frame.

Clearances

Necessary clearances: clearances on all edges should be established at $\frac{1}{8}$ in. However, since the tolerances on Herculite manufacturing are plus 0 and minus $\frac{3}{32}$ in., where free edges of doors meet, finished clearance may reach $\frac{10}{32}$ in.; and where free edge of one door meets hinged edge of another in a battery of doors, the clearance may reach $\frac{3}{32}$ in.

The weather-tightness of any door depends upon the clearances between panels, and also, if the door is single-acting, upon the overlap of the rabbet over the edge of the door, upon weather-stripping, and similar items.

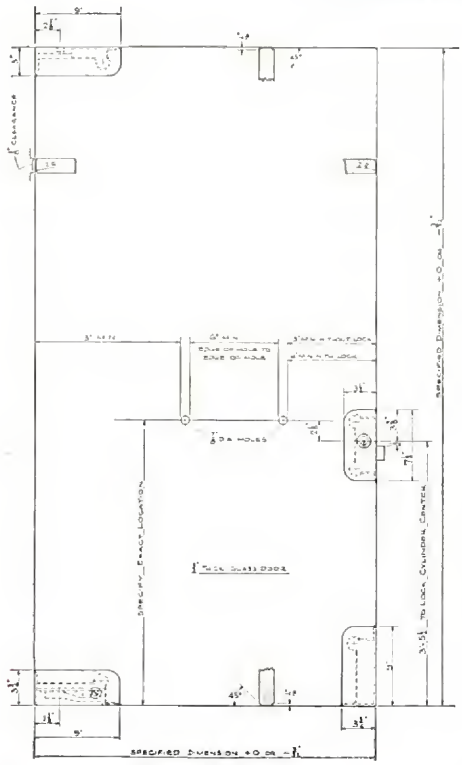
Operation

(1) Photo-Electric Control—Herculite Doors are ideally suited to be operated by photo-electric control, with equipment supplied by several dependable manufacturers.

(2) Door Holders and Closers—Where it is desired to use door holders or closers of the usual type, it is necessary to use the channel construction S-04 (with or without lock) shown below.

(3) Pivot Hinges—Most types of pivot hinges can readily be adapted to fittings S-08 and S-09 shown below.

STANDARD DIMENSIONS AND HARDWARE



Standard Dimensions

Strike
S-011

Lock
S-010

Top and Bottom Bolt Setting
S-07

Bottom Pivot
S-09

Top Pivot
S-08

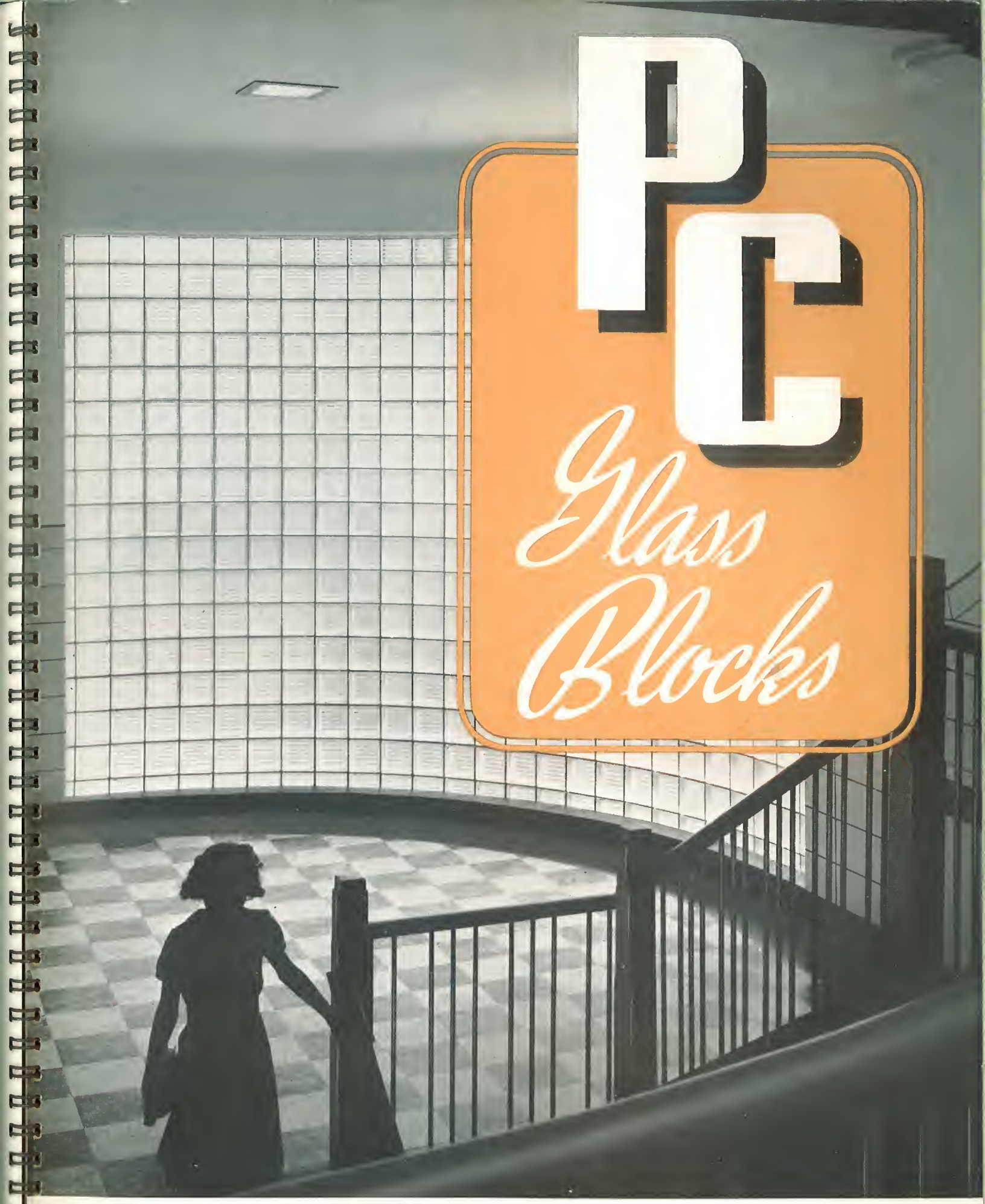
Top or Bottom Channel
S-04 (with or without lock)

Herculite Doors, Showing the Use of a Transom Bar and Complete Frame Around Door

Thrust of door is supported by transom bar and vertical members
BLOOMGARTEN & FROHWERK, Architects

A Column Definitely Separating Two Pairs of Herculite Doors

A contrast to installations in which the glass doors extend in an unbroken bank



PITTSBURGH CORNING CORPORATION · GRANT BUILDING PITTSBURGH, PA.

PITTSBURGH PC CORNING

Glass Blocks

made by Pittsburgh Corning Corporation—which combines the facilities and research of the world's foremost manufacturer of technical glass and its greatest producer and distributor of flat glass products.

RESEARCH FACILITIES

For many years groups of men in the factories and the laboratories of the Pittsburgh Corning Corporation, the Corning Glass Works and the Pittsburgh Plate Glass Company have been painstakingly studying all aspects of glass block design, fabrication and performance. Where it has seemed necessary or desirable the assistance of independent investigators and testing laboratories has been utilized. Among these have been the following:

The Mellon Institute of Industrial Research
The Carnegie Institute of Technology
The University of Minnesota
Pittsburgh Testing Laboratories
Electrical Testing Laboratories
Riverbank Laboratories

ARCHITECTURAL SERVICE

The Pittsburgh Corning Corporation maintains an able staff of field consultants and glass experts. Architects everywhere are invited to take full advantage of the cooperation and advice these men can extend in connection with problems involving these products. Complete engineering and specification service is provided on all Pittsburgh Corning Products. Communications addressed to Pittsburgh Corning Corp., Grant Bldg., Pittsburgh, Pa., or to any branch of the Pittsburgh Plate Glass Co. will receive prompt attention.

DISTRIBUTION FACILITIES

PC Glass Blocks are distributed through the warehouses of the Pittsburgh Plate Glass Company, the branches of W. P. Fuller & Co. on the Pacific Coast, and through selected dealers. Pittsburgh warehouses are located in the principal trading centers throughout the country, and form a complete network of fully-stocked headquarters, with unequalled facilities for rendering prompt and efficient service to the building trades, no matter where located. For a complete list of these chief distribution centers, see the list on page 20 of this section.

PITTSBURGH CORNING CORPORATION
GRANT BUILDING PITTSBURGH, PA.

THESE *Important* PC GLASS BLOCK FEATURES

. . . Mean Easier Installation, Stronger Panels and Greater Beauty

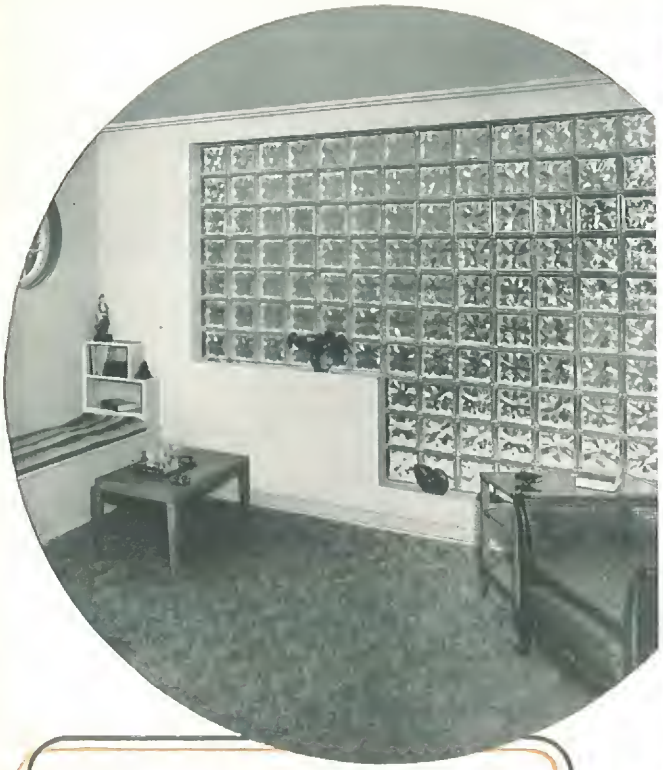
1. PC Glass Blocks are made of clear, colorless glass of proven durability. The light which streams through them is of full daylight tone, requiring no special consideration in the matching of colors, either for decoration or production uniformity.

2. PC Glass Blocks are hollow "all glass" units with fused seals made at high temperatures, relatively free of entrapped water vapor. This feature was developed by our engineers so that PC Glass Blocks will remain tightly sealed. Because of this method of "all glass" construction, the seal has the same coefficient of expansion as the block itself. The joint is as strong as any other part of the block. This tight seal insures the permanence of the dehydrated dead-air space, thus preventing condensation within the block, and affording the maximum heat insulation.

3. PC Glass Blocks have all-glass mortar edges coated with grit-bearing water-and-alkaline-resistant plastic coating. This forms a permanent bond between glass and mortar, which insures a high degree of wind resistance and weather-tightness. As is the case with all masonry, voids in mortar joints are a chief cause of leaky walls. The mason can prevent this trouble by using care in completely filling all mortar joints.

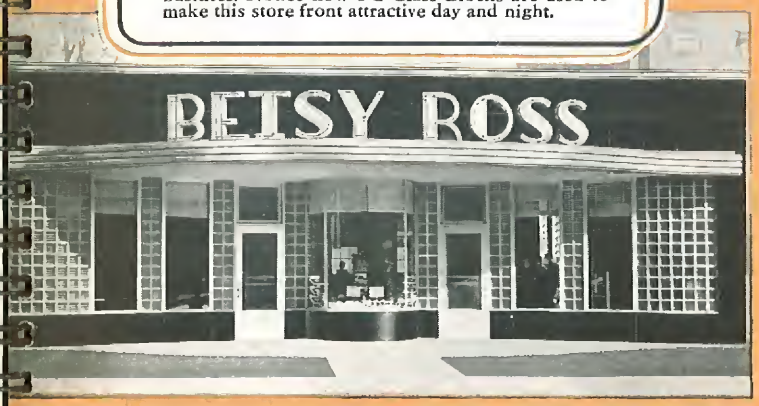
4. PC Glass Block edge construction forms a "key-lock" mortar joint, providing a full bed of mortar, yet permitting a visible joint of only about ¼ inch, resulting in a trim panel that is pleasing to the eye. And this "key-lock" joint is easier to handle in laying.

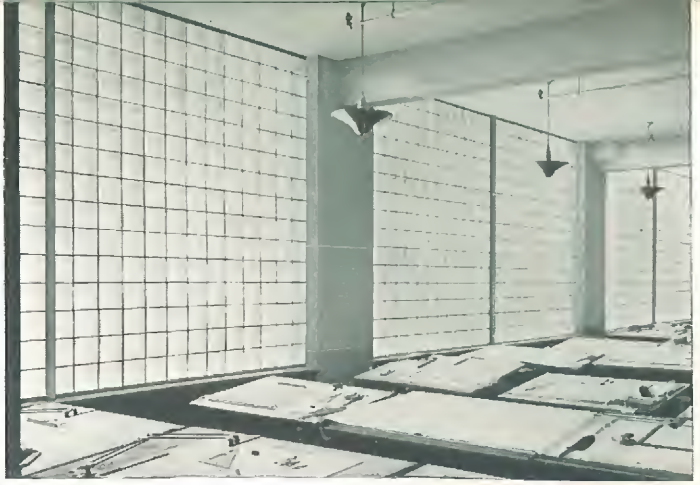
These are all features that assure consumer satisfaction. Better color—neater appearance in panels—greater durability —all are important. All of them guard the investment of the final consumer—and the reputation of those who have recommended and installed the material.



(*Above*)
A wall of glass blocks floods the room with light and cheerfulness. It reduces street noise in the room, guards privacy. In this Michigan house there won't be any great heat loss through the panel, for PC Glass Blocks insulate light-transmitting areas.

(*Below*)
People like to eat in smart-looking places. So the management that provides a snappy front gets the business. Notice how PC Glass Blocks are used to make this store front attractive day and night.



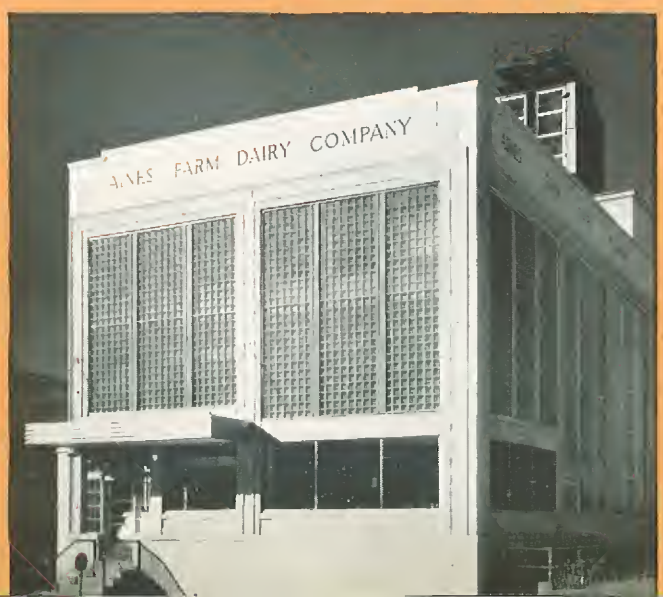


Draftsmen need plenty of good light. And the man with a board well within the room needs it, too. That's why PC Prism Light-Directing Glass Blocks were used here. These blocks are specially designed to direct a large portion of the light upward, to be reflected from the ceiling to working areas throughout the room.

Here is a typical use of PC LX-75 Glass Blocks in a paper mill. The glass blocks flood the room with softly diffused daylight. They help in the control of temperature and humidity, with a resulting reduction of condensation on the light areas. And the big glass block panels are easy to keep clean.

(*Left Below*)
Cleanliness is of major importance to a dairy. That's why so many dairies are using PC Glass Blocks. Panels are easy to clean, with a brush and water or simply with a cloth. The large, clear panels *look* clean—a factor important to sales.

(*Below*)
This combination home and dental office profits from many glass block advantages. The offices are bright, quiet and cheerful. And the insulating values of the glass blocks aid air-conditioning. Architect—Edouard J. Mutrux.



PITTSBURGH PC CORNING

Glass Blocks OFFER MANY ADVANTAGES

Combine the light-transmitting values and beauty of glass with the insulating values of a masonry wall.

MORE DAYLIGHT

Bright, cheerful rooms are in demand for up-to-date homes. And in stores and factories better lighting has long proved itself an important factor in increasing sales and improving production efficiency. Better lighting adds to safety and provides eye-comfort. People like daylight—they like to work in it—they like its quality and its cheerful effect. With PC Glass Blocks you get an abundance of diffused daylight. And with far less solar heat transmission than you would experience with equal areas of single-glazed sash.

IMPROVED APPEARANCE

Homes that have the smart, up-to-date appearance of glass blocks are easier to sell. Attractive, well-lighted stores get the business that dull, unattractive stores lose. Factories that are well-kept and efficient-looking rate better in public opinion—and rate better with employees, too. People like a cheerful, clean-looking building, whether they live there, work there, or come to buy there. PC Glass Blocks are well suited for use with other decorative materials. In themselves they are an interesting and flexible decorative medium.

BETTER HEAT INSULATION

Whether you are concerned with heating or cooling, glass blocks help answer the problem of heat control where large light areas are desired. For PC Glass Blocks have less than half of the heat loss factor of ordinary single-glazed window areas—even less than that of double-glazed openings. In every PC Glass Block there is a partially evacuated, dead-air space between the two surfaces of glass. This is an effective, sealed-in heat retardant that saves money.

Thus temperature control and humidity control are much easier and less costly. Heating costs are reduced in cold weather. Air-conditioning systems are more efficient when light areas are built with PC Glass Blocks, for their lower heat conductance, and in particular their quite low solar heat transmission, materially reduce the air-conditioning load.

LESS SURFACE CONDENSATION

Where surface condensation on window areas is a problem, the use of glass blocks often proves advantageous. For moisture does not condense on the warm side of a PC Glass Block panel except under unusually severe temperature and humidity conditions. Consequently, glass block panels stay cleaner, too.

DIRT INFILTRATION ELIMINATED

In plants where foods, finely machined parts, or delicate fabrics are produced—in restaurants, hotels or shops visited by a fastidious public—in homes where cleanliness is treasured—PC Glass Blocks are an ideal source of daylight. For harmful dirt and grit can't filter through panels of glass blocks. This is especially important in regions where the atmosphere is smoky or dusty. Glass blocks likewise keep out gases that may be offensive or may cause deterioration of equipment.

EASIER TO CLEAN

A whole panel of glass blocks is cleaned as one unit—not a small panel at a time. No mullions to clean—just a simple sweep of one smooth glass-and-cement area. Many maintenance men have found that satisfactory cleaning can be done simply by one man with a hose, and a long-handled brush. The translucent effect of glass block panels keeps them looking clean long after ordinary clear glass looks spotty or streaked from dirt particles.

LOWER MAINTENANCE COSTS

With PC Glass Block panels for light-giving wall areas or partitions, maintenance costs are almost non-existent. No unsightly and dangerous corroded or rotted sash need be replaced. Once installed, the solid panel of glass and strong, clean mortar joints practically takes care of itself.

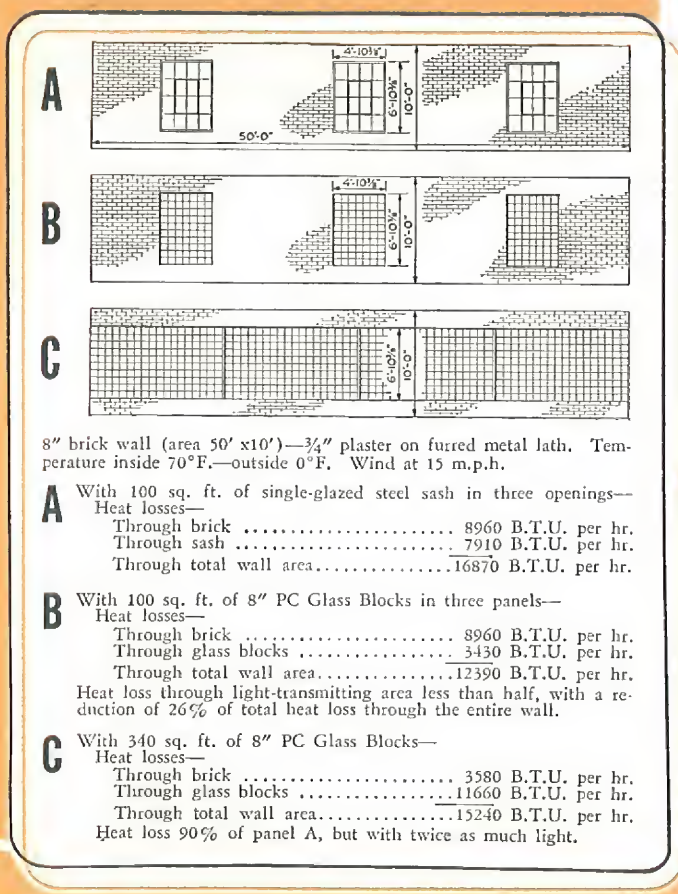
PC Glass Blocks make a permanent type of panel. Glass blocks are not easily marred or broken. Should replacement of an individual block be required, it can be done easily by a regular mason.

PRIVACY

Translucent glass blocks admit well-diffused streams of light—but they guard privacy. Unsightly views can be eliminated. Distracting views are shut off. There is greater concentration of vision on the things you want seen.

EFFECTIVE SOUND INSULATION

Glass block panels substantially reduce distracting and undesirable noise. Even in noisy factory surroundings, offices can have quiet and privacy. With glass blocks, homes or stores on busy corners can shut off the clatter from the street.



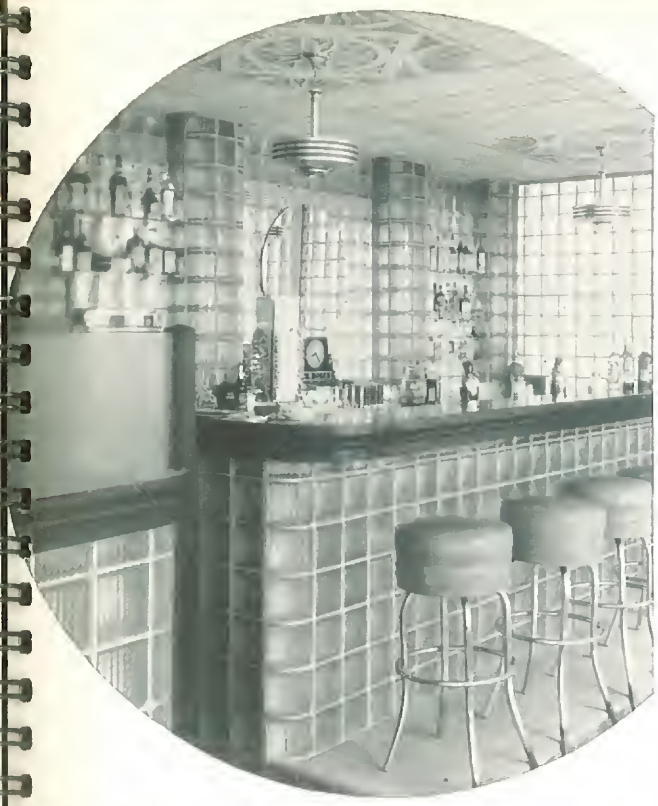
8" brick wall (area 50' x10')—¾" plaster on furred metal lath. Temperature inside 70°F.—outside 0°F. Wind at 15 m.p.h.

A With 100 sq. ft. of single-glazed steel sash in three openings—
Heat losses—
Through brick ..... 8960 B.T.U. per hr.
Through sash ..... 7910 B.T.U. per hr.
Through total wall area..... 16870 B.T.U. per hr.

B With 100 sq. ft. of 8" PC Glass Blocks in three panels—
Heat losses—
Through brick ..... 8960 B.T.U. per hr.
Through glass blocks ..... 3430 B.T.U. per hr.
Through total wall area..... 12390 B.T.U. per hr.
Heat loss through light-transmitting area less than half, with a reduction of 26% of total heat loss through the entire wall.

C With 340 sq. ft. of 8" PC Glass Blocks—
Heat losses—
Through brick ..... 3580 B.T.U. per hr.
Through glass blocks ..... 11660 B.T.U. per hr.
Through total wall area..... 15240 B.T.U. per hr.
Heat loss 90% of panel A, but with twice as much light.

NO OTHER SINGLE BUILDING MATERIAL OFFERS ALL THESE IMPORTANT ADVANTAGES

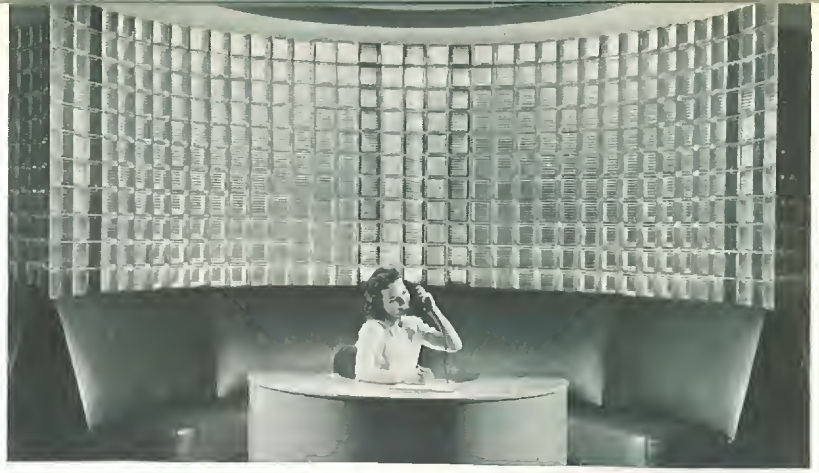


Above

This bar in Pueblo, Colorado has plenty of smartness. Glass Block panels bring in light from outdoors, while the decorative motif of the blocks is carried out in the lighted panels under and behind the bar.

Below

The Coulter's Dry Goods Company store in Los Angeles has smartness both inside and out—an important factor in retail selling. Panels of PC Glass Blocks provide ample daylight. Their clear color helps selling, for it allows customers to see goods in their true color. Architect—Stiles O. Clement.



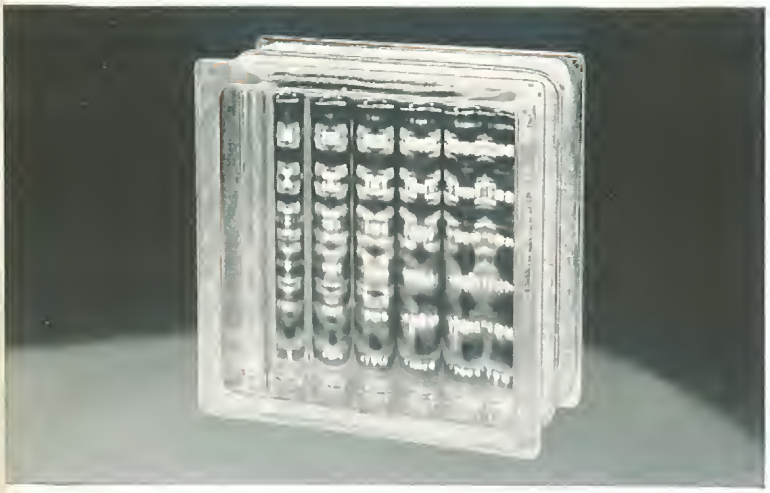
First impressions are important—and the first impression is certain to be a good one if customers or guests are greeted in a beautiful and comfortable reception room such as this. Note how effectively PC Glass Blocks can be used in a large curved panel.

In this auditorium the use of PC Glass Blocks solved the problem of getting daylight far into the room, without having large areas of ordinary glass that would cause great heat loss.

PC Glass Blocks lend themselves to many interesting architectural treatments. They are especially valuable because they serve both decorative and utilitarian purposes at the same time. In this modern store front they provide beauty and transmit daylight into the store.

PITTSBURGH PC CORNING

Glass Blocks



ARGUS

1. A conventional pattern designed for general use, both decorative and utilitarian.
2. High light transmission with good light diffusion. (See page 9.)
3. Can be laid with flutes vertical or horizontal on room side with equally pleasing and efficient results. Caution: When used in combination with corner or Radial blocks, if pattern match is desired, the standard blocks must be laid with flutes horizontal on room side.
4. Smooth outside faces permit maximum cleanability.
5. Pattern description: Smooth outside faces, interior flutes identical and assembled at right angles.

DECORA

1. A decorative pattern ideally suited to harmonize with both modern and conventional design.
2. High light transmission with irregular diffusion and high translucency. (See page 9.)
3. Asymmetric design permits laying without regard to pattern.
4. Smooth outside faces insure maximum cleanability.
5. Pattern description: Smooth outside faces, asymmetric design on both interior faces.

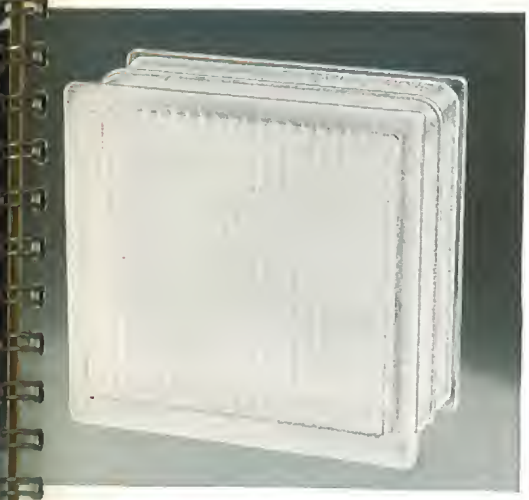
REEDED DECORA

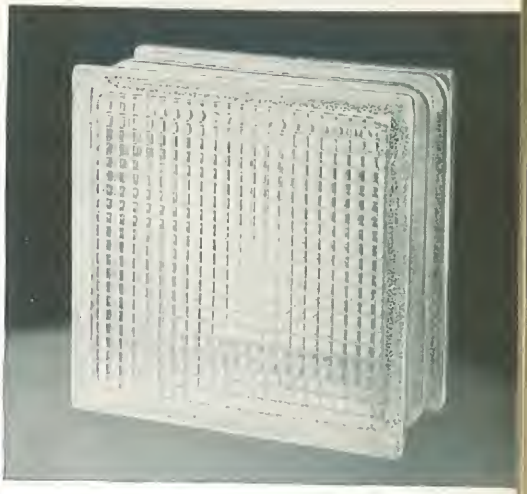
1. A modified Decora design to increase irregular pattern effects.
2. High light transmission with good diffusion and superior obscurity. (See page 9.)
3. Should be laid with exterior reeds vertical.
4. Cleanability is maintained by the smoothly rounded exterior reeds.
5. Pattern description: Narrow parallel reeds on both exterior faces, asymmetric design on both interior faces.

SAXON

1. A pleasing uniform pattern designed for even light diffusion and brightness reduction, but with good light transmission. (See page 9.)
2. Interior etched surfaces with exterior reeds produce maximum obscurity.
3. Should be laid with exterior reeds vertical.
4. Cleanability is maintained by the smoothly rounded exterior reeds.
5. Pattern description: Narrow parallel reeds on both exterior faces, parallel to wide flutes on both interior faces. Both interior faces are etched.

AVAILABLE IN A WIDE SELECTION OF SIZES AND PATTERNS DESIGNED FOR PRACTICABILITY AND BEAUTY...





BRISTOL LX-75 (with Fiberglas screen)*

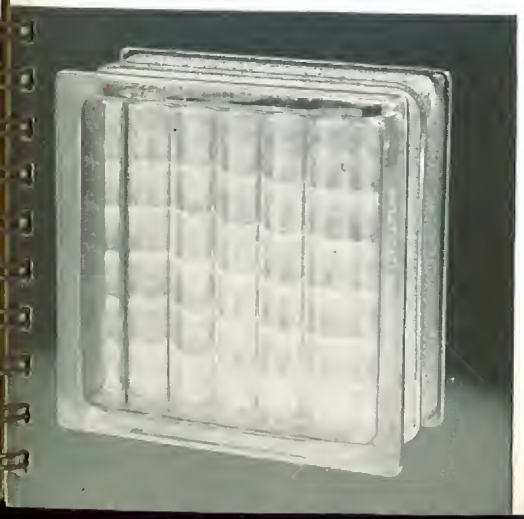
1. Specially designed for use on sun exposures to provide softer, more diffused light, with greatest reduction in objectionable glare, and to reduce solar heat transmission.
2. The Fiberglas screen insert in combination with the face pattern of the block produces maximum light diffusion and obscurity, while sacrificing little in light transmission. Also, the greatest reduction in solar heat transmission is effected.
3. Should be laid with exterior flutes vertical.
4. Cleanability is maintained by the smooth exterior flutes and lightly etched border.
5. Pattern description: Narrow vertical flutes and etched border on both outside faces, flat etched inside faces, and Fiberglas screen securely sealed within the block.

NOTE: This block supplied in the 8" (7¾" x 7¾") size only.

ARGUS LX-75 (with Fiberglas screen)*

1. Designed to afford a conventional pattern, yet to provide increased diffusion of light and decreased transmission of solar heat, for general use on those sun exposures requiring some reduction in objectionable glare.
2. Pattern description and other features: same as Argus except for Fiberglas screen sealed within block.

NOTE: This block supplied in the 8" (7¾" x 7¾") size only.



DRUID LX-75 (with Fiberglas screen)*

1. Designed to provide a light-diffusing, non-glare unit for use below eye level in panels containing Prism Light-Directing blocks.
2. Must be laid with exterior flutes vertical.
3. Pattern description: Narrow vertical flutes and etched border on both outside faces, horizontal flutes on both inside faces, and Fiberglas screen securely sealed within the block. Closely matches appearance of Prism Light-Directing unit.

NOTE: This block supplied in the 8" (7¾" x 7¾") size only.

* Manufactured by Owens-Corning Fiberglas Corporation.

PRISM LIGHT DIRECTING

1. Specially designed to control the direction of sunlight transmitted by the block, and under proper conditions, as described in PC Booklet on this subject, to provide improved natural illumination.
2. By means of unlike prisms on the two inside faces, the greater part of the transmitted light is directed upwardly—away from the direct vision or glare zone—to the ceiling where it may be reflected downward to provide ideal, indirect "daylighting."
3. Can be set in one position only—block is marked to indicate correct setting. Must not be used below eye level. For lower portions of panels below eye level use Druid LX-75 Blocks.
4. Smooth vertical exterior flutes and lightly etched border insure easy cleaning.
5. Pattern description: Narrow vertical flutes and etched border on both outside faces, horizontal prisms on both inside faces.

NOTE: This block supplied in the 8" (7¾" x 7¾") size only.

SIZES AND SHAPES AVAILABLE

	Argus	Decora	Reeded Decora	Saxon	* Argus LX-75	* Bristol LX-75	* Druid LX-75	* Prism Light-Directing
5¾" Square Block	X	X	X	X				
7¾" Square Block	X	X	X	X	X	X	X	X
11¾" Square Block	X	X	X	X				
5¾" Corner Block	X	X	X	X				
7¾" Corner Block	X	X	X	X				
7¾" Radial Block	X	X	X	X				

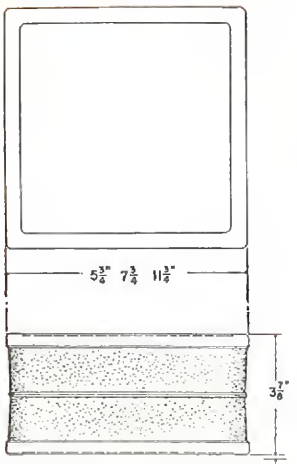
Patterns, Shapes and Sizes subject to change without notice.
*Prices slightly higher than standard blocks.

PITTSBURGH PC CORNING

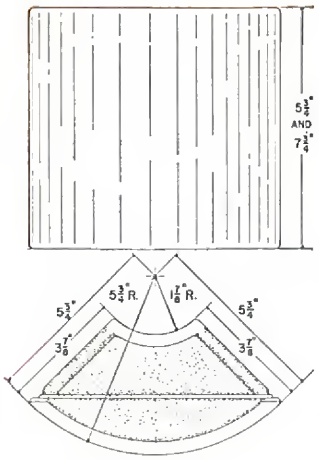
Glass Blocks

SIZES AND SHAPES AVAILABLE

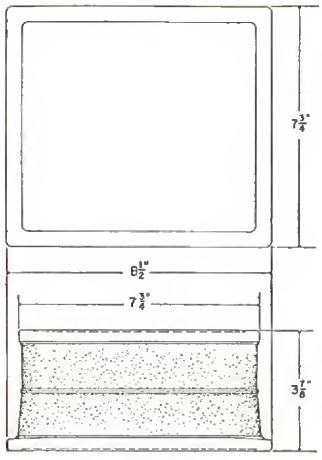
(For patterns available see pages 6 & 7)



SQUARE BLOCKS



CORNER BLOCKS



7¾" RADIAL BLOCK

PC GLASS BLOCKS APPROVED BY BUILDING CODE AUTHORITIES

Building Code Authorities throughout the country have accepted and approved the use of PC Glass Block as a building material of adequate strength for non-load-bearing construction when installed according to the manufacturer's recommendation.

IMPORTANT GENERAL INFORMATION

(a) PC Glass Blocks are non-load bearing. Adequate provision must be made for support of construction above glass block panels.

(b) Provision for expansion must be made at jambs and head of exterior panels.

(c) Sills must be painted with a heavy coat of asphalt emulsion and allowed to dry for two hours before placing felt strip or laying first mortar bed.

(d) Mortar shall be one (1) part Portland cement, one (1) part lime, and four (4) to six (6) parts sand all measured by dry volumes, and *integral type waterproofer,* mixed to a consistency as stiff as will permit good working and shall be drier than for ordinary clay brick work. For interior panels, the waterproofer may be omitted. Mortars prepared from masonry cements of low volume change, incorporating metallic stearate type waterproofing, and mixed in accordance with the manufacturer's recommendation may be used. Admixtures in the form of setting accelerators and anti-freeze compounds shall not be used.

(e) Mortar must not bridge expansion joint space.

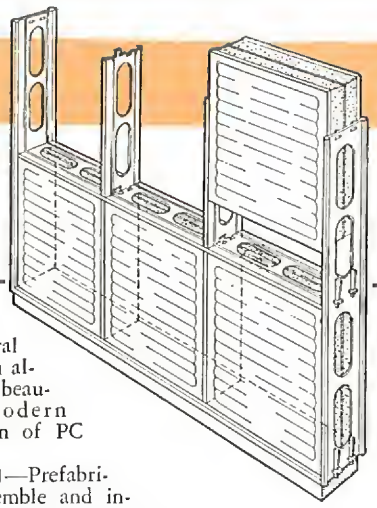
(f) All exterior glass block panels must be well calked at panel perimeter to prevent penetration of excessive moisture.

(g) Wall ties, wall anchors and expansion strips must be installed as recommended. (See Page 12.)

(h) Estimating data—For 100 sq. ft. of panel area (based on ¼" visible mortar joints).

Size of Block	6"	8"	12"
Number of blocks	400	225	100
Volume of Mortar (in cu. ft.)	4.3	3.2	2.2

(i) Size of structural members supporting glass block panels should be calculated. See Page 15 for table of Glass Block weights including mortar.



BEAUTY—The attractive architectural bronze or aluminum alloy members blend beautifully into the modern decorative pattern of PC Glass Blocks.

EASE OF ERECTION—Prefabricated members assemble and interlock easily for continuous erection.

EASILY DISMANTLED—with 100% salvage. This is valuable where partitions are to be removed or re-located. Should it be necessary to replace a damaged block, it can easily be accomplished.

DIAGONAL LIGHT TRANSMISSION—Open areas in the metal members allow light to pass diagonally through the panel.

ADEQUATE PROVISION FOR EXPANSION AND CONTRACTION—Flexibility of Revere Metal permits slight movement of glass blocks.

LOAD DISTRIBUTION—Loads on continuous horizontal members are distributed through vertical members, affording uniform load distribution.

ELECTRICAL FACILITIES—Raceways are provided for wiring and outlets.

OPENINGS—Supplementary members are provided for doors, windows and cased openings.

THE METAL METHOD OF ERECTING ATTRACTIVE GLASS BLOCK PANELS FOR INTERIORS

As more and more architects have used glass blocks for their interesting effects and practical advantages, the possibilities of using metal as a framework for the glass blocks have become evident. We are now in a position to offer to architects and the building trade Revere Metal Members especially designed and prefabricated for erecting PC Glass Blocks for interior panels.

These members are extruded metal shapes, manufactured by Revere Copper and Brass Incorporated. They are available in either architectural bronze or aluminum alloy. They are designed to interlock and assemble into panels that give the architect new decorative possibilities. Although easily dismantled with 100% salvage, glass blocks with Revere Metal Members make solid but flexible panels. They are for use in straight *interior* walls, having flat, uniform plane surface.

Revere Metal Members are available for setting 12" x 12" and 8" x 8" PC Glass Blocks—for all panel sizes and combinations up to twelve blocks high and wide in the 12" size, and up to eighteen blocks high and wide in the 8" size.

CONSTRUCTION DATA SHEETS—

Data sheets are available which furnish basic principles for the proper installation of Pittsburgh Corning blocks in Revere Metal shapes and show their application to specific problems. For data sheets, address:

Pittsburgh Corning Corporation, Grant Building, Pittsburgh, Pa.

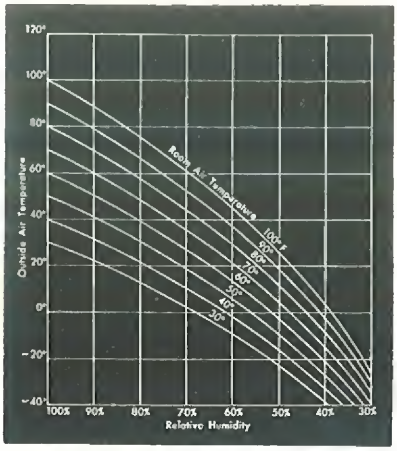
• THERMAL INSULATION

Tests run during the past several years by a number of nationally recognized laboratories have established values for the overall coefficient of heat transfer "U" as 0.40 to 0.43 for panels of 8-inch block constructed in the recommended manner. In computing heat losses through panels for design purposes, it is recommended that a "U" value of 0.49 be used for all block sizes and face patterns.

• SURFACE CONDENSATION

Due to the high insulating value of PC Glass Blocks, condensation will not start forming on the room side of glass block panels until the outside air has reached a temperature much lower than that necessary to produce condensation on single-glazed windows. The accompanying chart shows at what temperatures condensation will form.

OUTDOOR TEMPERATURE REQUIRED TO PRODUCE CONDENSATION ON THE ROOM SIDE SURFACE OF PC GLASS BLOCK PANELS



For example, the chart shows that with inside air at 70° F. and relative humidity at 40%, condensation will not begin to form on the interior surfaces of a glass block panel until an outdoor temperature of —14° is reached. Under similar conditions with single steel sash, moisture will begin to form when the outdoor temperature reaches +33° F.

• LIGHT TRANSMISSION

Light transmission measurements through the glass block faces of individual units have been made by two slightly different methods in the absence of a generally accepted standard. An average value for the Argus, Decora, Reeded Decora and Saxon patterns is 80%, for the Argus LX-75 68% and for the Bristol LX-75 55% of incident light.

Of greater practical value to the designer will be the data on the intensity and distribution of daylight illumination provided by PC Glass Block panels. This problem has been studied for more than a year in a specially designed test house. Although the test work is not yet concluded so that general results may be published, answers to specific daylighting problems may be had upon application.

• SOUND INSULATION

Glass block panels have sound insulation properties equal to or better than other forms of masonry construction having equal weight per unit surface area, and are decidedly superior to single-glazed sash.

Tests give sound reduction factors for standard glass block panels of 37.6 to 42.0 decibels, a value closely approximating that for a 4-inch hollow clay tile wall plastered both sides.

• CRUSHING STRENGTH

Glass block construction should never be used for load-bearing walls or panels. However, it is necessary that the construction have ample strength to resist the forces created by conditions within itself, and repeated tests have indicated that the crushing strength is well above that of accepted masonry constructions. Repeated tests made of square wallettes laid up with PC Glass Blocks show a minimum panel compressive strength of 400 to 600 pounds per square inch of gross loaded area.

• BOND STRENGTH

PC Glass Blocks have a special grit-bearing, moisture-and-alkaline-resisting, plastic coating on all mortar edges. This insures a complete and permanent bond between the glass and the cement mortar and provides a panel construction having a high degree of wind resistance and water-tightness.

• WIND RESISTANCE TESTS

Wind pressure tests have been run on many PC Glass Block panels ranging in area from 50 sq. ft. (5′ x 10′) to 256 sq. ft. (16′ x 16′). From these data it has been found that any panel, within the area-limit recommended,* will withstand a safe wind load of 20 pounds per sq. ft. with a factor of safety of at least 2.7.

**—For area-limits recommended for PC Glass Block panels, consult panel size limitation data on pages 10 & 11.*

• SOLAR HEAT GAIN

The use of glass blocks for light-transmitting areas results in a marked reduction in the total solar heat gain as compared with ordinary windows. This factor is of considerable advantage in buildings that are properly air conditioned, but does not eliminate the need for adequate ventilation or shading in non-air-conditioned rooms.

Based upon extensive tests, suggested figures for design computations are a maximum hourly rate of 41 B.t.u. and maximum daily rate of 250 B.t.u. total heat gain per square foot of glass block panel on South exposure, 40 degrees North Latitude for August 1. Where LX-75 Blocks (Fiberglas screen insert) are used, these figures may be reduced 40%.

More complete data on solar radiation appears in the Guide of the American Society of Heating and Ventilating Engineers.

• WEATHER RESISTANCE

Under all sorts of weather conditions, PC Glass Block construction has proved its durability. Tests of panels subjected to repeated cycles of heating, water spray and freezing show no sign of cracking or other structural deterioration, although temperatures well above and below those encountered in any exposure have been regularly used.

• WATER-TIGHTNESS

Experience, both in the laboratory, where some 4000 sq. ft. of panels 8′ x10′ in size have been tested, and also in the field where records of a number of jobs are available, conclusively indicates that properly constructed panels of PC Glass Block will be free from leakage. After long, driving rain storms, the most that has been observed is a slight darkening of the mortar joints.

•FIRE RESISTANCE

Six-inch Argus pattern, PC Glass Blocks have been approved by the Underwriters' Laboratories, Inc., Chicago, Illinois for window openings not exceeding 120 sq. ft. in area nor 12 ft. in width or height, subject to light fire exposure (Class F Openings). Guide No. 40 UM 2.6.5.—June 30, 1938—File R2556.

PITTSBURGH PC CORNING

Glass Blocks

EXTERIOR

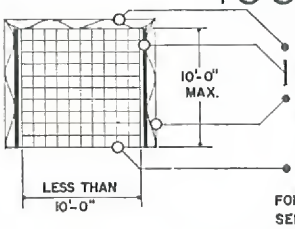
PANEL SIZE LIMITATIONS WITH MINIMUM EXPANSION AND ANCHORAGE REQUIREMENTS

For application of these cases in continuous horizontal and vertical panels with suggested intermediate expansion joints, supports and stiffeners, see page 15.

NO SCALE

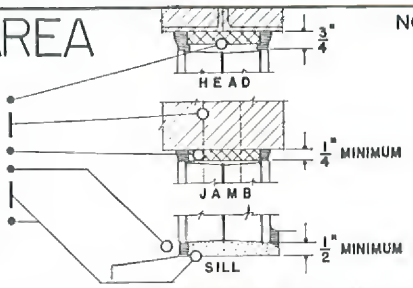
CASE 1 — 100 SQ.FT. MAX. AREA

The use of wall anchors as indicated in this case is restricted only by building code requirements and the discretion of the Architect.



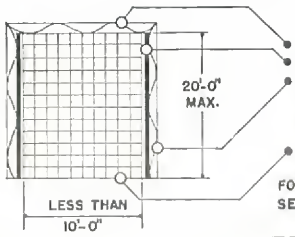
- EXPANSION CLEARANCE AT HEAD
- LATERAL SUPPORT — CRIMPED PC WALL ANCHORS
- EXPANSION CLEARANCE AT JAMBS
- CALK ENTIRE PERIMETER OF PANEL
- MOP ENTIRE PERIMETER OF OPENING WITH ASPHALT EMULSION
- NO SHEARLOCK BAR OR ROOFERS FELT

FOR APPLICATION IN CONTINUOUS PANELS SEE PAGE 15 SECTION B–B.



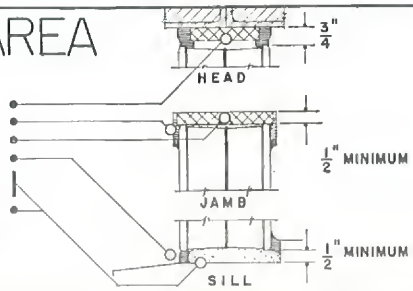
CASE 2 — 144 SQ.FT. MAX. AREA

Where the use of wall anchors is restricted or forbidden as indicated in Case 1, the benefits of simplified construction may be had by chase construction as shown in this case.

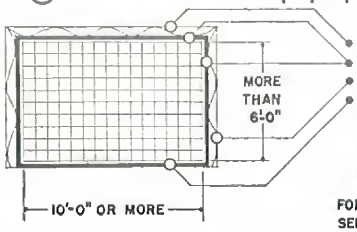


- EXPANSION CLEARANCE AT HEAD
- LATERAL SUPPORT — CHASE
- EXPANSION CLEARANCE AT JAMBS
- CALK ENTIRE PERIMETER OF PANEL
- MOP ENTIRE PERIMETER OF OPENING WITH ASPHALT EMULSION
- NO SHEARLOCK BAR OR ROOFERS FELT

FOR APPLICATION IN CONTINUOUS PANELS SEE PAGE 15 SECTION C–C.

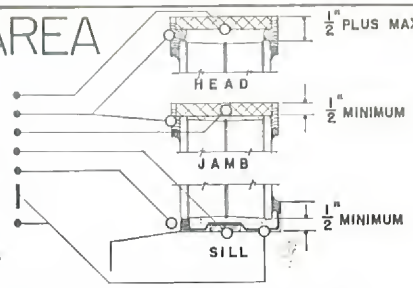


CASE 3 — 144 SQ.FT. MAX. AREA

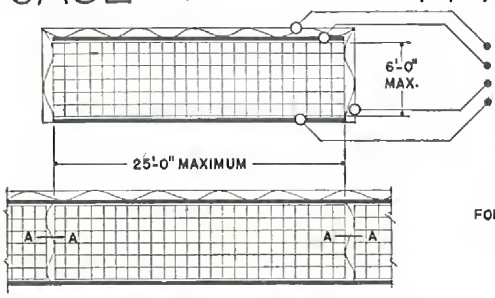


- EXPANSION CLEARANCE AT HEAD
- LATERAL SUPPORT — CHASE
- EXPANSION CLEARANCE AT JAMBS
- LATERAL SUPPORT SHEARLOCK BAR
- CALK ENTIRE PERIMETER OF PANEL
- MOP ENTIRE PERIMETER OF OPENING WITH ASPHALT EMULSION
- ROOFERS FELT AT SILL

FOR APPLICATION IN CONTINUOUS PANELS SEE PAGE 15 SECTION C–C.



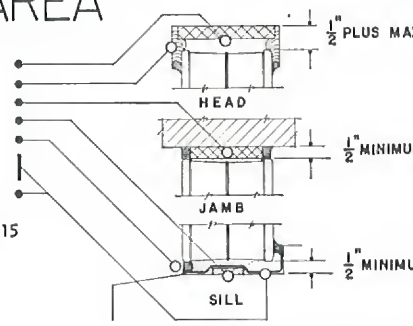
CASE 4 — 144 SQ.FT. MAX. AREA



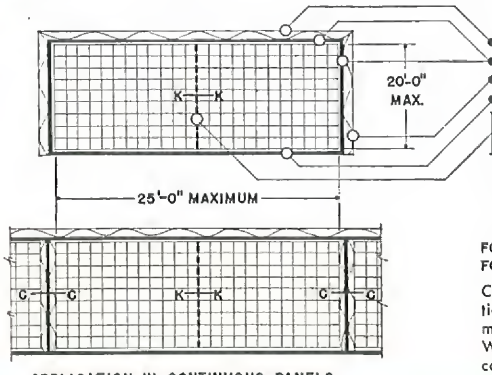
APPLICATION IN CONTINUOUS PANELS

- EXPANSION CLEARANCE AT HEAD
- LATERAL SUPPORT — CHASE
- EXPANSION CLEARANCE AT JAMBS
- LATERAL SUPPORT SHEARLOCK BAR
- CALK ENTIRE PERIMETER OF PANEL
- MOP ENTIRE PERIMETER OF OPENING WITH ASPHALT EMULSION
- ROOFERS FELT ON SILL

FOR DETAIL AT SECTION A–A SEE PAGE 15



CASE 5 — 250 SQ.FT. MAX. AREA

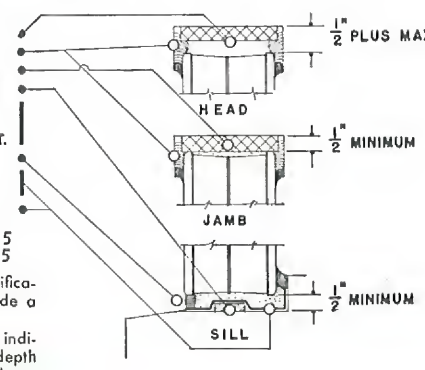


APPLICATION IN CONTINUOUS PANELS

- EXPANSION CLEARANCE AT HEAD
- LATERAL SUPPORT — CHASE
- EXPANSION CLEARANCE AT JAMBS
- LATERAL SUPPORT SHEARLOCK BAR
- INTERMEDIATE PANEL STIFFENERS SO LOCATED THAT NO UNSUPPORTED PANEL AREA SHALL EXCEED 144 SQ. FT.
- CALK ENTIRE PERIMETER OF PANEL
- MOP ENTIRE PERIMETER OF OPENING WITH ASPHALT EMULSION
- ROOFERS FELT AT SILL

FOR DETAIL AT SECTION C–C SEE PAGE 15
FOR DETAIL AT SECTION K–K SEE PAGE 15

Construction supporting panels in this classification should be of a type which will provide a minimum of movement and settlement.
Where maximum panel areas are used, as indicated in this case, it is recommended that the depth of chases be increased 1/2" and that 1" thick expansion strips (or 2 thicknesses of standard PC expansion strips) be used at jamb and head.



LEGEND

EXPANSION CLEARANCE — LATERAL SUPPORT REQUIRED — STIFFENER REQUIRED

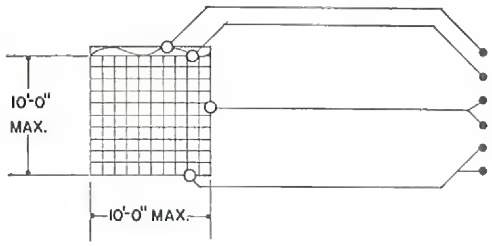
NOTE: Information shown on these sheets is not to conflict with any local building requirements.

INTERIOR

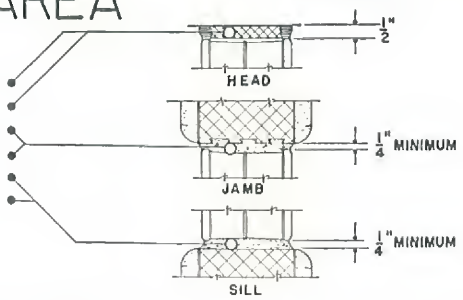
PANEL SIZE LIMITATIONS WITH MINIMUM EXPANSION AND ANCHORAGE REQUIREMENTS

CASE 6 — 100 SQ.FT. MAX. AREA

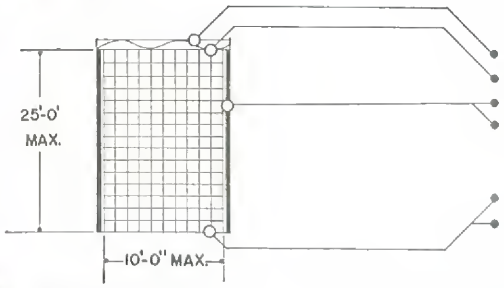
NO SCALE



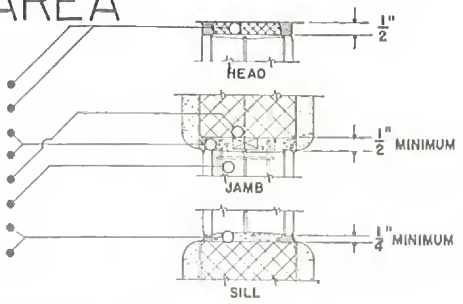
- EXPANSION CLEARANCE AT HEAD
- NO LATERAL SUPPORT
- LATERAL SUPPORT–MORTAR LOCK
- MORTAR IN SOLID
- NO LATERAL SUPPORT
- MORTAR IN SOLID



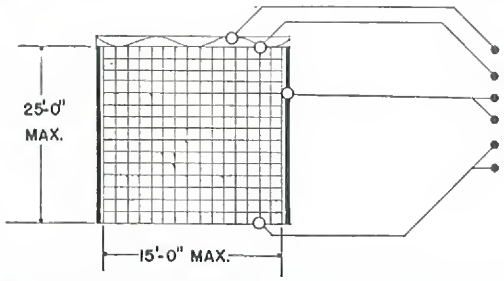
CASE 7 — 144 SQ.FT. MAX. AREA



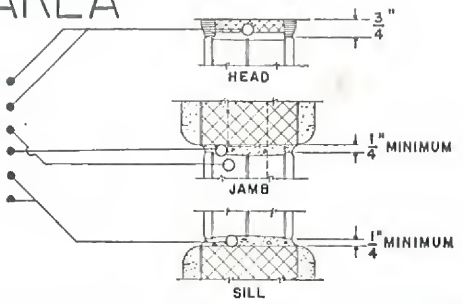
- EXPANSION CLEARANCE AT HEAD
- NO LATERAL SUPPORT
- LATERAL SUPPORT— SHEARLOCK
- MORTAR IN SOLID
- WOOD STRIP 1/2"X 1"
- PC WALL TIES
- NO LATERAL SUPPORT
- MORTAR IN SOLID



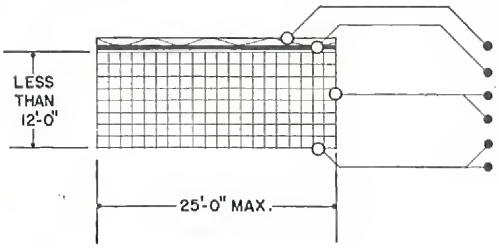
CASE 8 — 250 SQ.FT. MAX. AREA



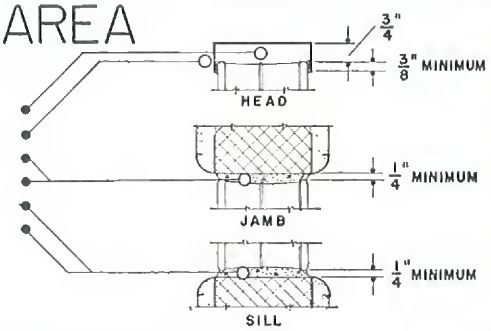
- EXPANSION CLEARANCE AT HEAD
- NO LATERAL SUPPORT
- LATERAL SUPPORT–PC WALL ANCHORS
- MORTAR IN SOLID
- NO LATERAL SUPPORT
- MORTAR IN SOLID



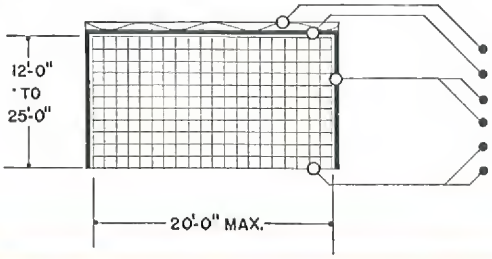
CASE 9 — 250 SQ.FT. MAX. AREA



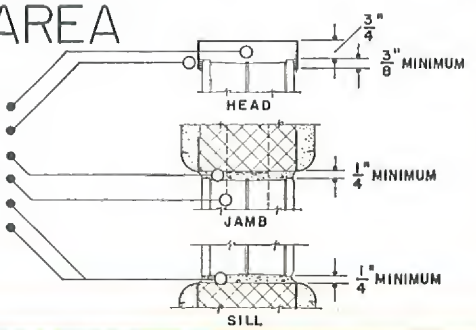
- EXPANSION CLEARANCE AT HEAD
- LATERAL SUPPORT— CHASE
- MORTAR IN SOLID
- NO LATERAL SUPPORT
- MORTAR IN SOLID
- NO LATERAL SUPPORT



CASE 10 — 250 SQ.FT. MAX. AREA



- EXPANSION CLEARANCE AT HEAD
- LATERAL SUPPORT – CHASE
- MORTAR IN SOLID
- LATERAL SUPPORT–PC WALL ANCHORS
- NO LATERAL SUPPORT
- MORTAR IN SOLID

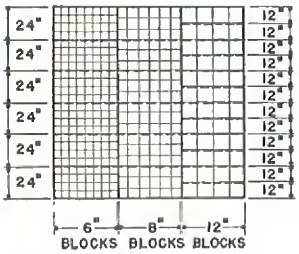


PITTSBURGH PC CORNING

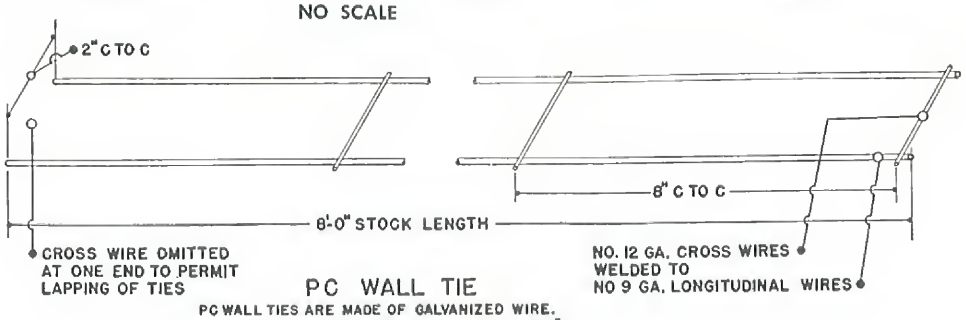
Glass Blocks

WALL TIES... WALL ANCHORS... EXPANSION JOINT STRIPS

NO SCALE

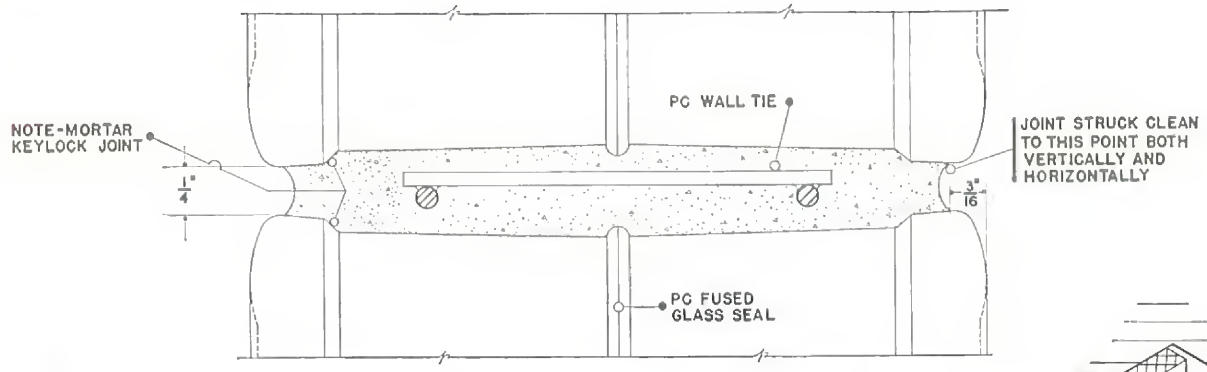


SPACING DIAGRAM OF PC WALL TIES FOR ALL SIZES OF PC GLASS BLOCKS

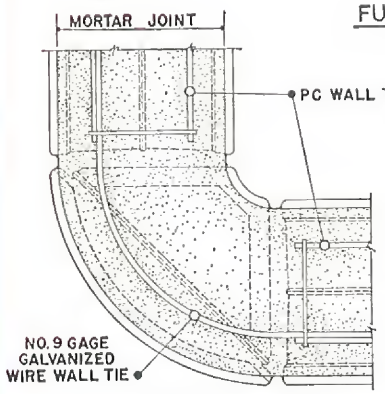


PC WALL TIE

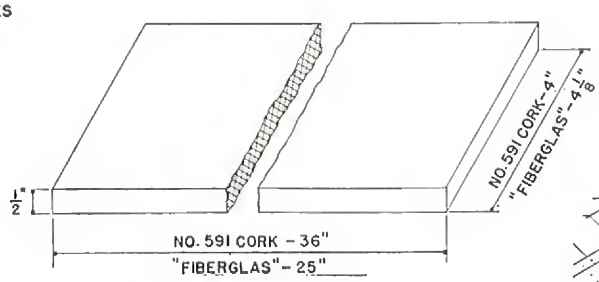
PC WALL TIES ARE MADE OF GALVANIZED WIRE.
FOR CONTINUOUS USE LAP ENDS OF WALL TIES 6" MIN..
WALL TIES MUST NOT BRIDGE EXPANSION JOINTS.
WALL TIES SHALL RUN FROM END TO END OF PANELS.



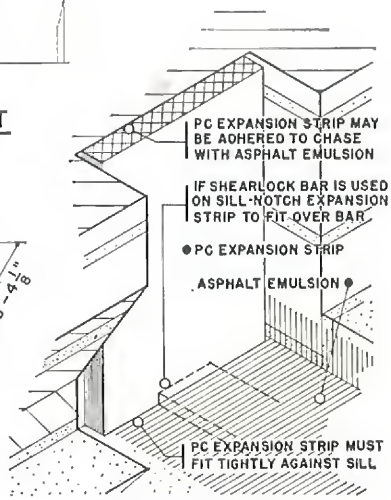
FULL SIZE SECTION THROUGH MORTAR JOINT



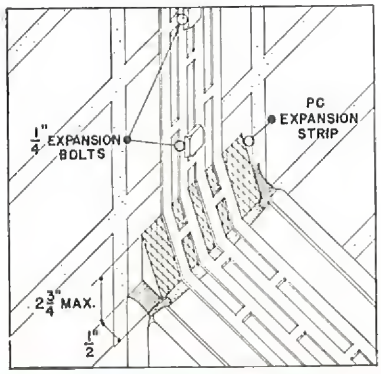
WIRE REINFORCEMENT AT CORNER BLOCK



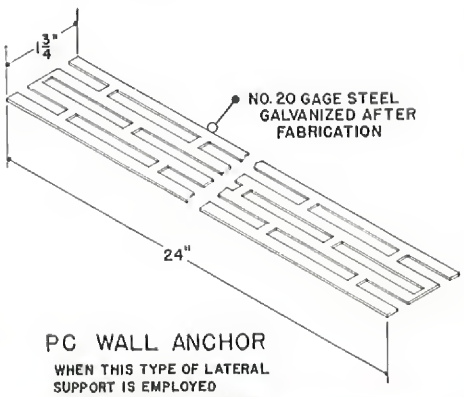
EXPANSION STRIPS



APPLICATION OF PC EXPANSION STRIPS



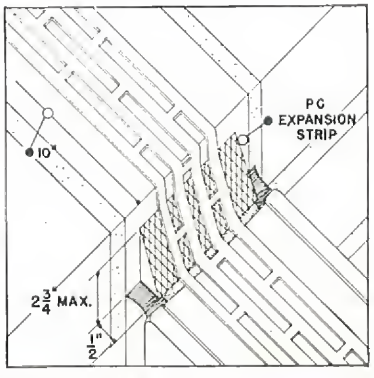
PC WALL ANCHOR INSTALLATION IN EXISTING STRUCTURES



PC WALL ANCHOR

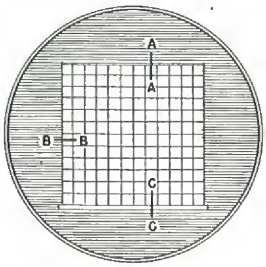
WHEN THIS TYPE OF LATERAL SUPPORT IS EMPLOYED ANCHORS SHOULD OCCUR IN SAME JOINTS AS WALL TIES

WALL ANCHORS MUST BE CRIMPED WITHIN EXPANSION JOINT



PC WALL ANCHOR INSTALLATION IN NEW STRUCTURES

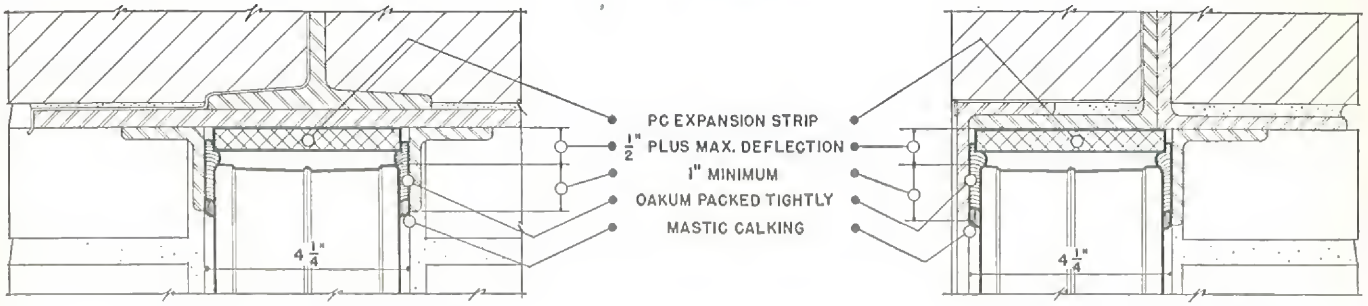
SCALE 3" = 1'0"



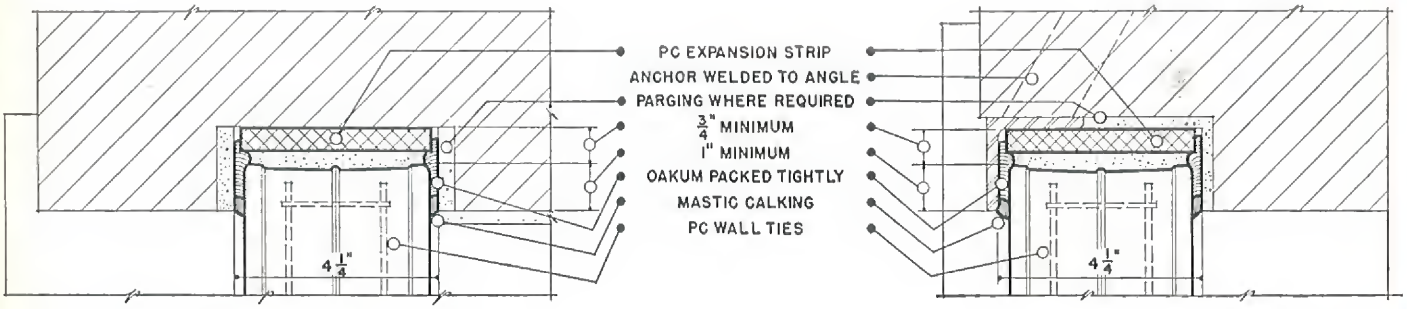
PC expansion strips may be adhered to back of chases at head and jambs with asphalt emulsion. Chases must be plumb and clear of protruding mortar, etc.

For dimensional data on wall ties, wall anchors and expansion strips, see opposite page.

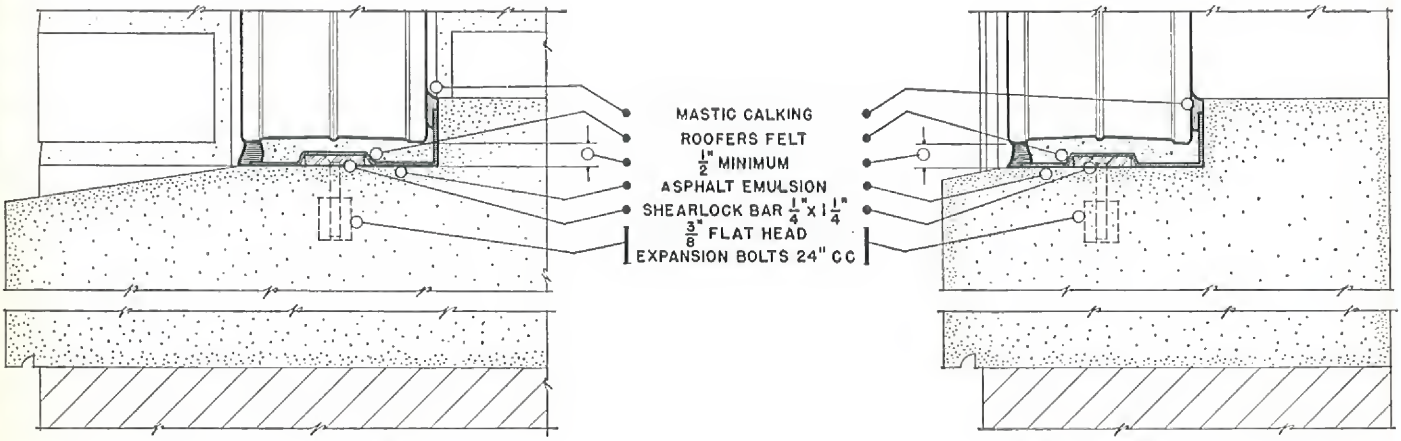
For panel size limitations and minimum anchorage requirements, see page 10.



SECTION A-A SECTION A-A



SECTION B-B SECTION B-B



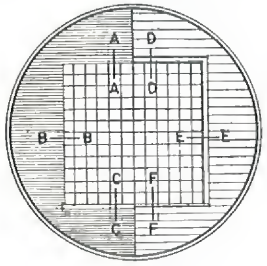
SECTION C-C SECTION C-C

12" MASONRY 8" MASONRY

PITTSBURGH PC CORNING

Glass Blocks IN EXTERIOR BRICK VENEER AND FRAME CONSTRUCTION

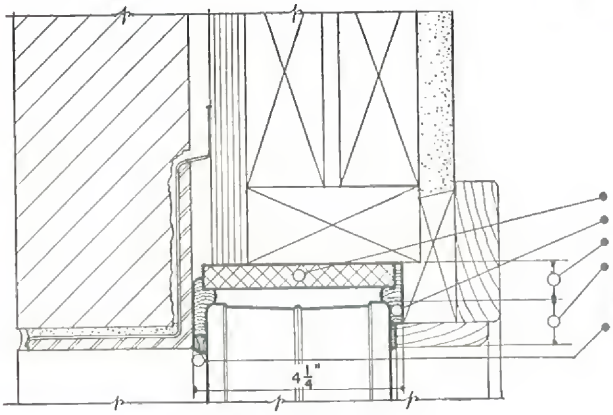
SCALE 3" = 1'0"



PC expansion strips may be adhered to back of chases at head and jambs with asphalt emulsion. Chases must be plumb and clear of protruding mortar, etc.

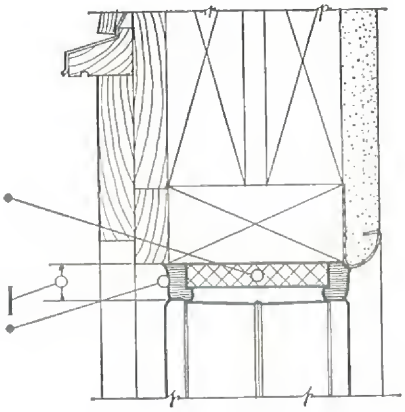
For dimensional data on wall ties, wall anchors and expansion strips, see page 12.

For panel size limitations and minimum anchorage requirements, see page 10.

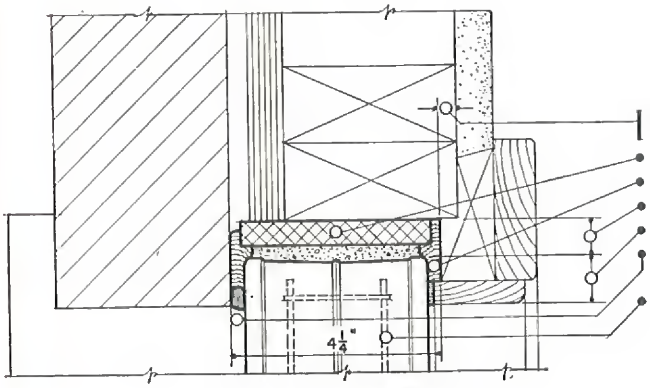


SECTION A–A

PC EXPANSION STRIP
OAKUM PACKED TIGHTLY
1/2" PLUS MAX. DEFLECTION
1" MINIMUM
3/4" FOR HEAD CONSTRUCTION NOT LATERALLY SUPPORTED
MASTIC CALKING

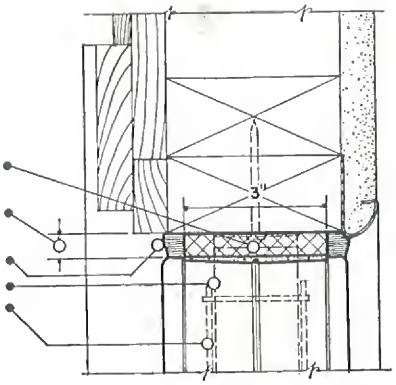


SECTION D–D

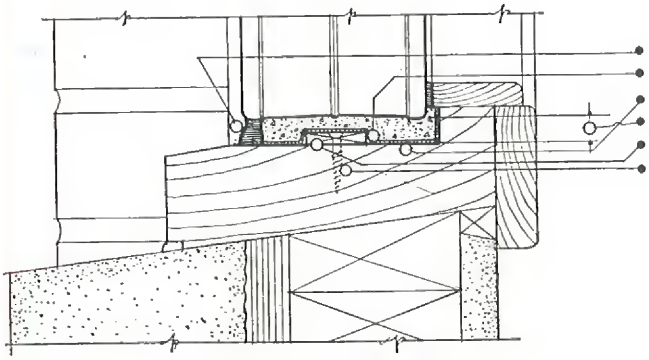


SECTION B–B

THIS DIMENSION VARIES FOR DIFFERENT WALL THICKNESSES
PC EXPANSION STRIP
OAKUM PACKED TIGHTLY
1/2" MINIMUM
1" MINIMUM
MASTIC CALKING
PC WALL ANCHORS
PC WALL TIES

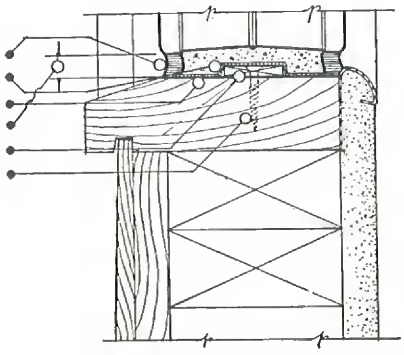


SECTION E–E



SECTION C–C

MASTIC CALKING
ROOFERS FELT
ASPHALT EMULSION
1/2" MINIMUM
WOOD SHEARLOCK STRIP 1/4" X 1 1/4"
F.H. WOOD SCREWS 16" O.C.



SECTION F–F

BRICK VENEER

WOOD FRAME

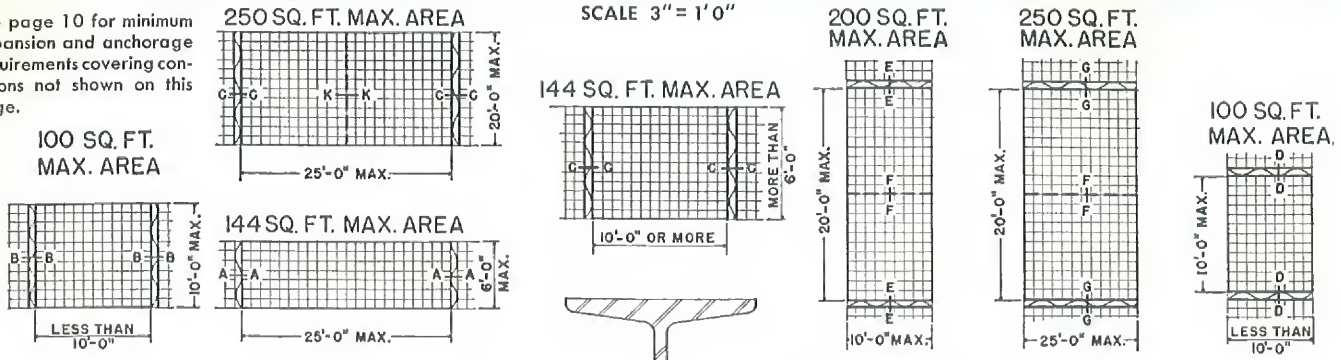
PITTSBURGH PC CORNING

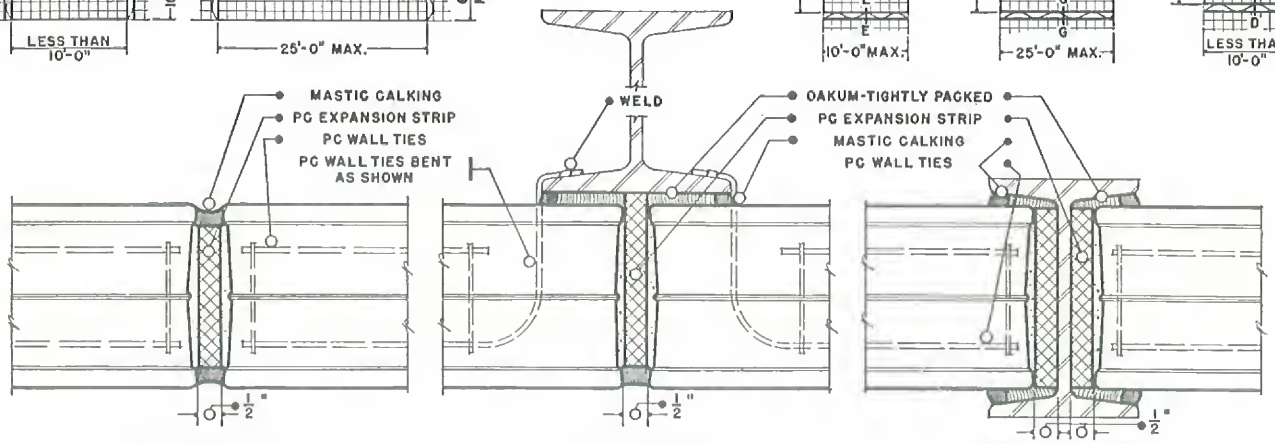
Glass Blocks

INTERMEDIATE EXPANSION JOINTS, SUPPORTS AND STIFFENERS FOR EXTERIOR PANELS

See page 10 for minimum expansion and anchorage requirements covering conditions not shown on this page.

SCALE 3" = 1'0"

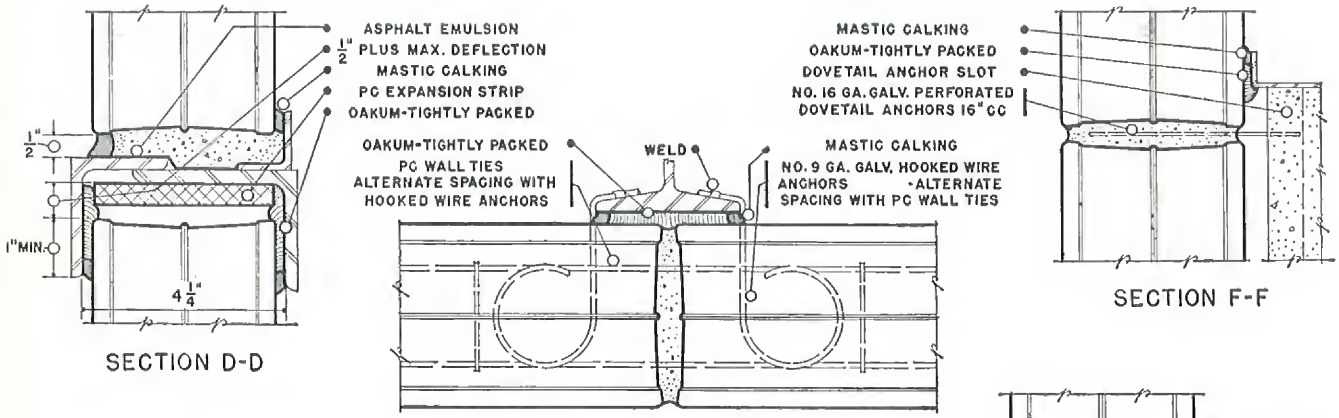




SECTION A-A

SECTION B-B

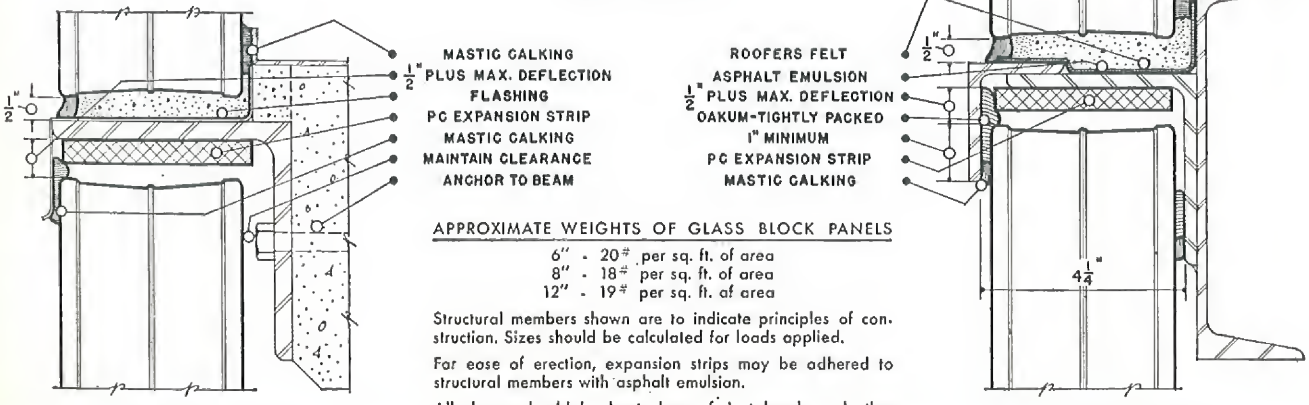
SECTION C-C



SECTION D-D

SECTION K-K

SECTION F-F



SECTION E-E

SECTION G-G

APPROXIMATE WEIGHTS OF GLASS BLOCK PANELS

6" - 20# per sq. ft. of area
8" - 18# per sq. ft. of area
12" - 19# per sq. ft. of area

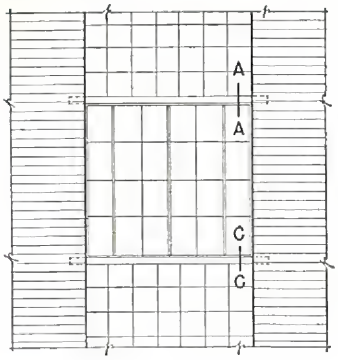
Structural members shown are to indicate principles of construction. Sizes should be calculated for loads applied.

For ease of erection, expansion strips may be adhered to structural members with asphalt emulsion.

All chases should be kept clear of rivet heads and other like protrusions.

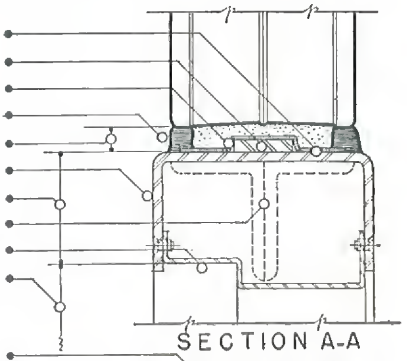
METAL SASH AND DOOR FRAMES ADJACENT TO GLASS BLOCK PANELS

SCALE 3" = 1'0"

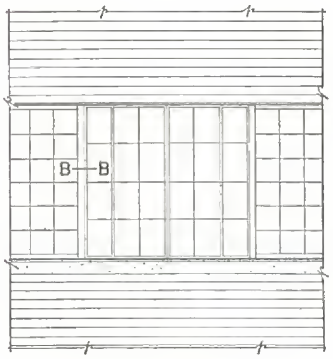


CASE A

ASPHALT EMULSION
$\frac{1}{4}$" x $1\frac{1}{4}$" SHEARLOCK BAR
ROOFERS FELT
MASTIC CALKING
$\frac{1}{2}$" MINIMUM
NO. 9 GAUGE SHEETMETAL
THIS DIMENSION VARIABLE
ADDITIONAL REINFORCEMENT
NO. 18 GAUGE SHEETMETAL
WINDOW OPENING DIMENSION

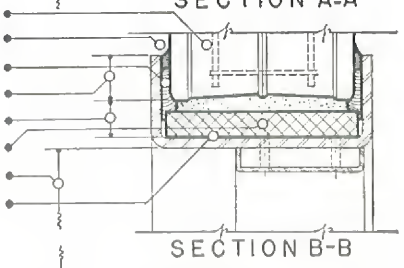


SECTION A-A

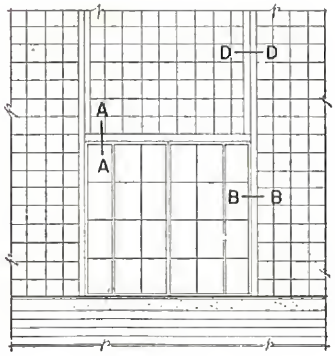


CASE B

PC WALL TIES
MASTIC CALKING
OAKUM PACKED TIGHTLY
VARIABLE- 1" MINIMUM
VARIABLE- $\frac{1}{2}$" MINIMUM
PC EXPANSION STRIP
WINDOW OPENING DIMENSION
ASPHALT EMULSION

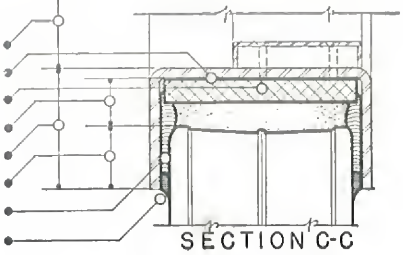


SECTION B-B



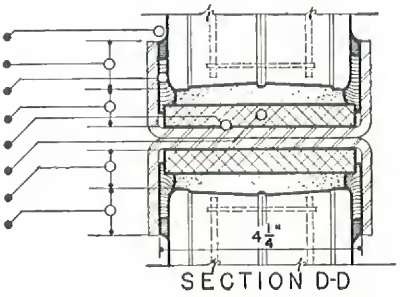
CASE C

WINDOW OPENING DIMENSION
ASPHALT EMULSION
PC EXPANSION STRIP
VARIABLE- $\frac{1}{2}$" MINIMUM
THIS DIMENSION VARIABLE
VARIABLE- 1" MINIMUM
OAKUM PACKED TIGHTLY
MASTIC CALKING



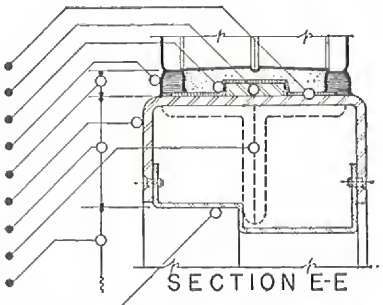
SECTION C-C

MASTIC CALKING
VARIABLE- 1" MINIMUM
OAKUM PACKED TIGHTLY
VARIABLE- $\frac{1}{2}$" MINIMUM
ASPHALT EMULSION
PC EXPANSION STRIP
VARIABLE- $\frac{1}{2}$" MINIMUM
VARIABLE- 1" MINIMUM



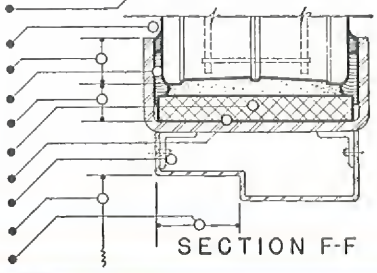
SECTION D-D

ASPHALT EMULSION
$\frac{1}{4}$" x $1\frac{1}{4}$" SHEARLOCK BAR
ROOFERS FELT
MASTIC CALKING
$\frac{1}{2}$" MINIMUM
NO.9 GAUGE SHEETMETAL
THIS DIMENSION VARIABLE
ADDITIONAL REINFORCEMENT
DOOR HEIGHT
NO. 18 GAUGE SHEETMETAL

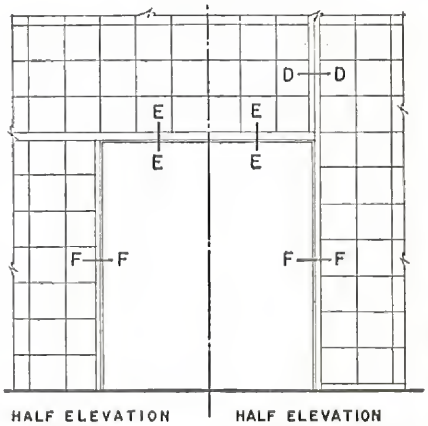


SECTION E-E

MASTIC CALKING
VARIABLE- 1" MINIMUM
OAKUM PACKED TIGHTLY
VARIABLE- $\frac{1}{2}$" MINIMUM
PC EXPANSION STRIP
ASPHALT EMULSION
CLIP ANGLES WELDED TO C
DOOR WIDTH
DOOR THICKNESS



SECTION F-F



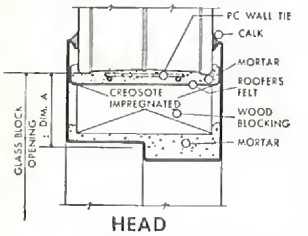
HALF ELEVATION SHOWING HORIZONTAL SUPPORT

HALF ELEVATION SHOWING VERTICAL SUPPORT

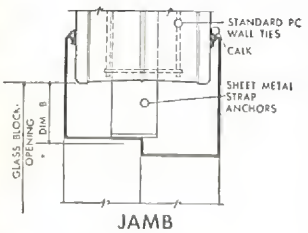
DOOR FRAME

INSTALLATION DETAILS FOR AUXILIARY FRAME
(16 Ga. Metal)

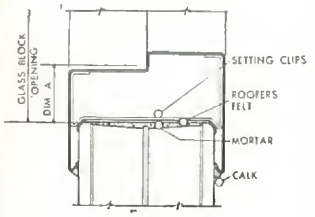
SPANS EXCEEDING 5'-0" TO HAVE ADDITIONAL REINFORCEMENT IN HEAD MEMBER OF AUXILIARY FRAME



HEAD

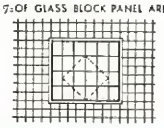


JAMB



SILL

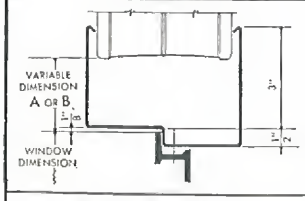
AREA OF STEEL SASH SHOULD NOT EXCEED 35% OF GLASS BLOCK PANEL AREA



WINDOWS EXCEEDING 5'-0" IN HEIGHT TO HAVE SPECIAL WALL TIES AT HEAD — FOR DETAILS WRITE PITTSBURGH CORNING CORPORATION, PITTSBURGH, PENNSYLVANIA

NO SCALE

LIGHT WEIGHT CASEMENTS



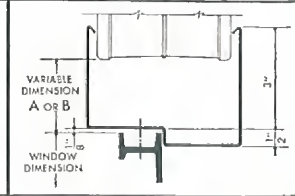
HEIGHTS

WINDOW DIMENSION	SIZE BLOCKS IN PANEL	GLASS BLOCK OPENING DIMENSION	DIMENSION A
1'-1⅛"	8"	1'-4¼"	1⅜16"
2'-3¼"	8"	2'-8¼"	2½"
3'-3½"	6"	3'-6¼"	1⅜"
4'-3¾"	8"	4'-8¼"	2¼"
5'-4"	6"	5'-6¼"	1⅛"
6'-1½"	6"	6'-6¼"	2⅜"

WIDTHS

WINDOW DIMENSION	SIZE BLOCKS IN PANEL	GLASS BLOCK OPENING DIMENSION	DIMENSION B
1'-1⅛"	8"	1'-4¼"	1⅜16"
1'-7⅜"	6"	2'-0¼"	2⅜16"
2'-1"	6"	2'-6¼"	2⅜"
2'-7⅛"	6"	3'-0¼"	2⅜16"
3'-1½"	6"	3'-6¼"	2⅜"
3'-1½"	8"	3'-4¼"	1⅜"
4'-7½"	6"	5'-0¼"	2⅜"
4'-7½"	8"	4'-8¼"	⅜"
6'-1⅝"	6"	6'-6¼"	2⅜16"

INTERMEDIATE WEIGHT CASEMENTS



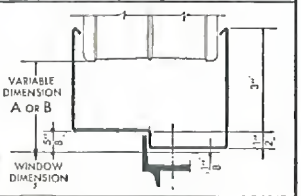
HEIGHTS

WINDOW DIMENSION	SIZE BLOCKS IN PANEL	GLASS BLOCK OPENING DIMENSION	DIMENSION A
1'- 2¼"	6"	1'-6¼"	2"
1'- 2¼"	8"	1'-4¼"	1"
2'- 1⅝"	6"	2'-6¼"	2⅜16"
3'- 1"	6"	3'-6¼"	2⅝"
3'- 1"	8"	3'-4¼"	1⅝"
4'-11¾"	8"	5'-4¼"	2¼"
5'-11⅛"	6"-8"-12"	6'-0¼"	9⅛16"
6'-10½"	6"-12"	7'-0¼"	⅞"

WIDTHS

WINDOW DIMENSION	SIZE BLOCKS IN PANEL	GLASS BLOCK OPENING DIMENSION	DIMENSION B
1'-1⅛"	6"	1'-6¼"	2⅜16"
1'-1⅛"	8"	1'-4¼"	1⅜16"
1'-7⅜"	6"-8"-12"	2'-0¼"	2⅝16"
3'-2⅝"	6"	3'-6¼"	1 13⁄16"
3'-2⅝"	8"	3'-4¼"	13⁄16"
4'-9¼"	6"-12"	5'-0¼"	1½"
6'-3½"	6"	6'-6¼"	1⅜"
6'-3½"	8"	6'-8¼"	2⅜"

INDUSTRIAL WINDOWS PIVOTED & PROJECTED



HEIGHTS

WINDOW DIMENSION	SIZE BLOCKS IN PANEL	GLASS BLOCK OPENING DIMENSION	DIMENSION A
*3'- 1⅝"	6"	3'-6¼"	2⅝16"
*3'- 1⅝"	8"	3'-4¼"	1⅝16"
*4'- 8"	6"-12"	5'-0¼"	2⅛"
°5'- 2"	6"	5'-6¼"	2⅛"
°5'- 2"	8"	5'-4¼"	1⅛"
*6'- 2⅜"	8"	6'-8¼"	2 15⁄16"
°6'-10⅜"	6"-12"	7'-0¼"	15⁄16"
°6'-10⅜"	8"	7'-4¼"	2 15⁄16"
*7'- 8¾"	6"-8"-12"	8'-0¼"	1¾"
°8'- 6¾"	6"-12"	9'-0¼"	2¾"

WIDTHS

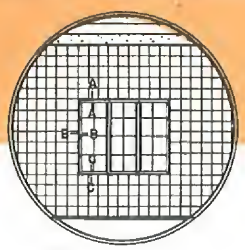
WINDOW DIMENSION	SIZE BLOCKS IN PANEL	GLASS BLOCK OPENING DIMENSION	DIMENSION B
*2'- 1⅜"	6"	2'-6¼"	2⅜16"
°2'- 5⅜"	8"	2'-8¼"	1⅝16"
*3'- 2"	8"	3'-4¼"	1⅛"
*3'- 2"	6"	3'-6¼"	2⅛"
°3'- 8"	6"-8"-12"	4'-0¼"	2⅛"
*4'- 2⅜"	6"	4'-6¼"	1 15⁄16"
*4'- 2⅜"	8"	4'-8¼"	2 15⁄16"
°4'-10⅜"	6"-12"	5'-0¼"	15⁄16"
°4'-10⅜"	8"	5'-4¼"	2 15⁄16"
*5'- 2¾"	6"	5'-6¼"	1¾"
°6'- 0¾"	6"	6'-6¼"	2¾"

MAKE CERTAIN THAT HEIGHT AND WIDTH SELECTED ARE FOR SAME SIZE BLOCKS IN PANEL

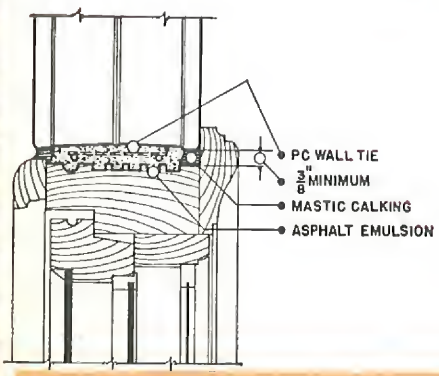
°—SASH USING 14" x 20" GLASS
*—SASH USING 12" x 18" GLASS

{ COMBINE 14" WIDTHS WITH 20" HEIGHTS AND 12" WIDTHS WITH 18" HEIGHTS

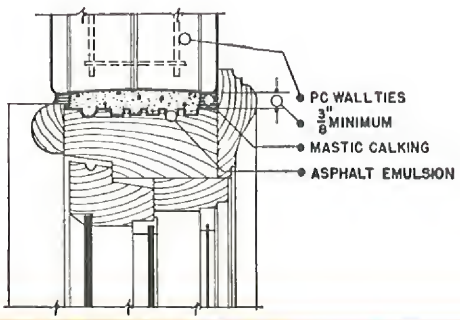
Auxiliary frames can be procured from metal sash manufacturers.



WOOD CASEMENT WINDOW FRAMES IN GLASS BLOCK PANELS



SECTION AA



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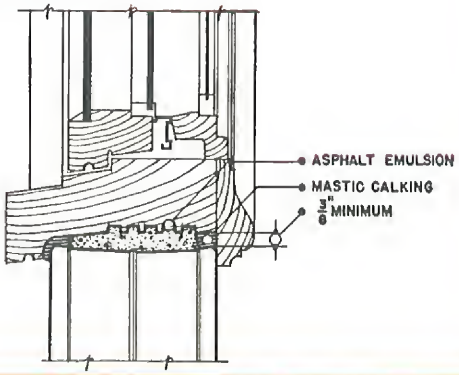
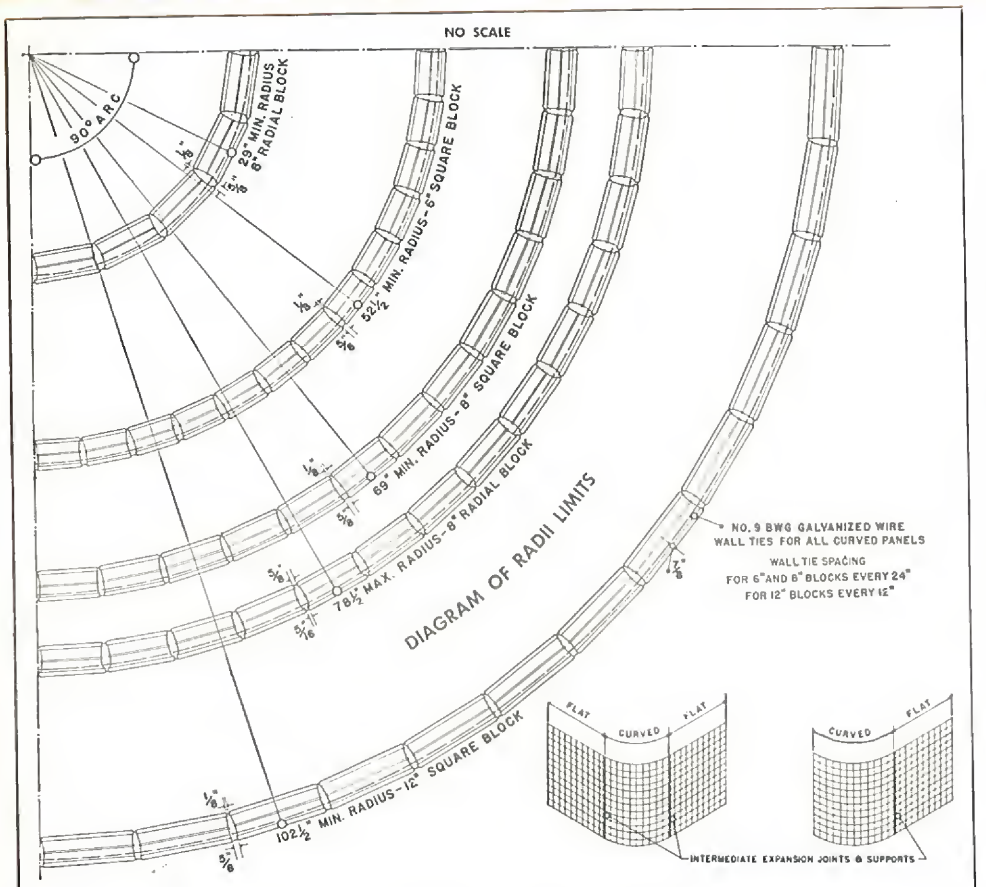


SECTION CC

PITTSBURGH PC CORNING

Glass Blocks

CURVED PANEL INSTALLATION REQUIREMENTS WITH TABLE OF RADII LIMITS



IMPORTANT—Shearlock bars and felts shall not be used on sills of curved panels.

Where flat and curved panels form an integral glass block area the shearlock bars and felts shall also be omitted from sills of flat areas.

See Page 10 for panel size limitations, minimum expansion requirements, and anchorage requirements other than shearlock bars.

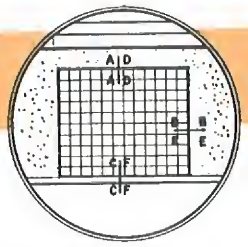
Combinations of flat and curved panels forming integral glass block areas can be installed in the manner described for the respective cases shown on page 10 with the exceptions noted above. However, it is suggested that the curved areas be separated from the flat areas by means of intermediate expansion joints and supports as indicated on the two small diagrams above. If this method of design is used the shearlock bar shall be omitted only from sills of curved area.

For details of intermediate expansion joints and supports, see Page 15.

TABLE OF RADII LIMITS FOR CURVED PANELS

Outside Radius Inches	Number of Block in 90° Circular Arc	Joint Thickness in Inches		Remarks
		Inside	Outside	
6" SQUARE BLOCK				
52-1/2	13	1/8	5/8	Minimum
56-1/4	14	1/8	9/16	
56-3/4	14	3/16	5/8	
60	15	1/8	9/16	
61	15	3/16	5/8	
63-3/4	16	1/8	1/2	
65	16	1/4	5/8	
67-1/2	17	1/8	1/2	
69	17	1/4	5/8	
71-1/4	18	1/8	7/16	
73	18	5/16	5/8	
No Maximum Limitations.				
8" SQUARE BLOCK				
69	13	1/8	5/8	Minimum
74	14	1/8	9/16	
74-3/4	14	3/16	5/8	
79	15	1/8	1/2	
80	15	1/4	5/8	
84	16	1/8	1/2	
85-1/4	16	1/4	5/8	
No Maximum Limitations.				
8" RADIAL BLOCK				
29	5	1/8	5/8	Minimum
34	6	1/8	3/8	
34-3/4	6	3/8	5/8	
39	7	1/8	1/4	
40-3/4	7	1/2	5/8	
44	8	1/8	1/8	
46-1/2	8	5/8	5/8	
49-1/2	9	3/16	1/8	
51-3/4	9	5/8	9/16	
55	10	1/4	1/8	
57-1/4	10	5/8	1/2	
60-1/2	11	5/16	1/8	
62-1/2	11	5/8	7/16	
66	12	3/8	1/8	
67-3/4	12	5/8	3/8	
71-1/2	13	3/8	1/8	
73-1/4	13	5/8	5/16	
76-3/4	14	7/16	1/8	Use Square Block for larger radii
78-1/2	14	5/8	5/16	
12" SQUARE BLOCK				
102-1/2	13	1/8	5/8	Minimum
No Maximum Limitations.				

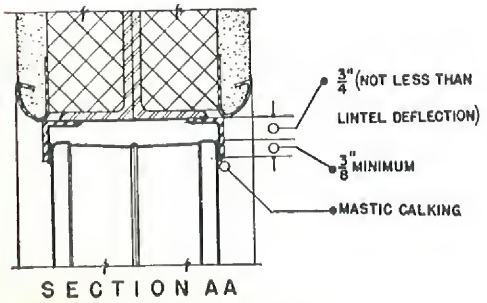
NOTE: Radii given to closest quarter inch; joint thicknesses to closest sixteenth inch.



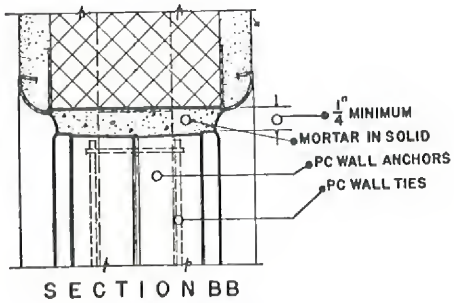
PANELS IN INTERIOR PARTITIONS

For dimensional data on wall ties and wall anchors, see Page 12.

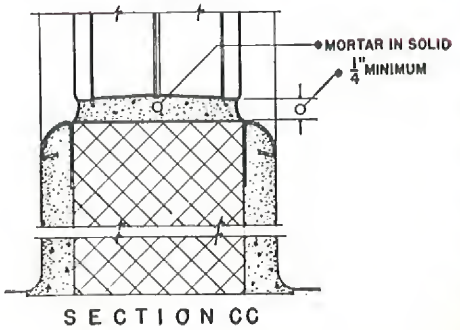
For panel size limitations and minimum anchorage requirements, see Page 11.



SECTION AA



SECTION BB



SECTION CC

CLOSED SPECIFICATIONS FOR PC GLASS BLOCK CONSTRUCTION

GENERAL CONDITIONS: The "General Conditions" of the contract are a part of these specifications.

SCOPE OF THE WORK: This contractor shall furnish all labor and materials to install all glass blocks where shown on the drawings or specified hereinunder. This shall include the furnishing and installation of all expansion joint strips, oakum packing, felts, shearlock bars, wall ties, wall anchors, calking, asphalt emulsion, and other labor and materials necessary for a complete installation. This contract does not include the preparation of the structure to receive the glass block panels, such as chases, stiffeners, etc., except as hereinafter specified.

MATERIALS: Glass Blocks . . . shall be hollow, partially evacuated, clear, colorless glass units as manufactured by the Pittsburgh Corning Corporation. Units shall be "all glass," formed of two halves fused together at a high temperature. Edges shall be so formed as to provide a "Key-lock" Mortar Joint. All blocks shall be coated on the edges with a grit-bearing, water-and-alkaline-resistant plastic material.

Patterns—Sizes—Shapes . . . shall be as shown on the drawings or as specified hereinunder:

(Indicate PC Patterns, sizes and shapes, and locations)

Expansion Joint Materials* . . . where shown or required shall be premoulded type as shown or specified by the architect or as recommended by the Pittsburgh Corning Corporation.

*—Expansion strips are available in the following types:
Premoulded Cork No. 591—4″ x ½″ x 36″
Premoulded "Fiberglas"—4⅛″ x ½″ x 25″
(Specify type desired—see also specifications under oakum)

Shearlock Bars . . . where required shall be of size and material shown on the drawings or as recommended by the Pittsburgh Corning Corporation.

Asphalt Emulsion . . . where shown on drawings or required shall be of such consistency as to provide a heavy, even coat free of lumps and voids. This material shall be subject to the approval of the architect.

Wall Ties. . . shall be of steel double wire mesh formed of two parallel wires (.150″ in diameter) with electrically welded cross wires (.105″ in diameter) at regular intervals, and shall be galvanized. Wall ties shall be installed in horizontal mortar joints of all glass block panels as follows:

For 5¾″ size blocks—Every four courses.
For 7¾″ size blocks—Every three courses.
For 11¾″ size blocks—Every course.

Wall ties shall run continuously with ends lapped not less than 6 inches and shall run from end to end of panel. Wall ties shall not bridge expansion joints.

Wall Anchors . . . where shown on drawings and as recommended by the Pittsburgh Corning Corporation shall be No. 20 gauge perforated steel strips 24 in. long by 1¾ in. wide galvanized after perforating. All wall anchors must be crimped within expansion joints, and shall generally be placed in the same joint as wall ties and must be completely embedded in the mortar joint of the glass block panels.

Mortar . . . shall be one (1) part Portland cement, one (1) part lime, and four (4) to six (6) parts sand all measured by dry volumes, and *integral type waterproofer,* mixed to a consistency as stiff as will permit good working and shall be drier than for ordinary clay brick work. For interior panels, the waterproofer may be omitted. Mortars prepared from masonry cements of low volume change, incorporating metallic stearate type waterproofing, and mixed in accordance with the manufacturer's recommendation may be used. Admixtures in the form of setting accelerators and anti-freeze compounds shall not be used.

Cement . . . shall be of Portland type conforming to the Standard Specifications for Portland Cement (A.S.T.M. Designation: C9-38).

Lime . . . shall be a *high calcium* type hydrated lime or Mason's Hydrate conforming to the Standard Specifications for Hydrated Lime for Structural Purposes (A.S.T.M. Designation: C6-31); or a well-slaked *high calcium* quicklime conforming to the Standard Specifications for Quicklime for Structural Purposes (A.S.T.M. Designation: C5-26). Hydrated lime or Mason's Hydrate shall be soaked at least two hours, and quicklime shall be slaked a minimum of two weeks before use in mortar. Where lime in the form of putty is used, the amount specified shall be interpreted as the actual volume of putty.

Sand . . shall conform with Tentative Specifications for Aggregate for Masonry Mortar (A.S.T.M. Designation: C144-39T), and shall contain particles of such size that not more than (10) ten per cent by weight shall pass a No. 100 mesh sieve, and (100) one hundred per cent shall pass through a No. 8 mesh sieve as defined therein.

Waterproofer . . . shall be of the metallic stearate type added in the proportion recommended by the manufacturer at the time the mortar is mixed, except where a waterproof Portland cement incorporating a metallic stearate or prepared masonry mortar is used. In this latter case, no waterproofer shall be added during mixing of mortar.

Oakum . . . where indicated on drawings* or required for lateral cushioning of glass block panels at jambs and head chases, shall be of non-staining lightly oiled type and shall be subject to the approval of the architect.

*—Premoulded expansion joint material is preferable, but shredded oakum loosely packed may be substituted in expansion joint spaces at jambs and head in chase construction.

Calking . . . mastic calking compounds as approved by the architect shall be applied evenly and to the full depth of recess provided at both interior and exterior perimeters of all glass block panels.

FLASHINGS: Unless otherwise specified this contractor shall furnish and install in locations shown or where required, such flashings as are necessary to provide a complete installation.

INSTALLATION: Expansion joint strips shall be adhered to the jambs and heads with asphalt emulsion and shall run continuously in the expansion space and must rest directly on sill. Apply heavy coat of asphalt emulsion to sills permitting same to dry at least two hours before laying mortar.

All mortar joints must be completely filled with mortar. Mortar must not bridge across expansion joints. Mortar joints shall not be furrowed. Blocks shall be laid up plumb, true to line with courses level and with ¼″ visible mortar joints. While mortar is still plastic and before final set, the joints shall be compressed to a depth necessary to expose the corners of the blocks as sharp, clean lines and joints immediately tooled slightly concave and smooth. The number of courses of glass blocks laid in successive lifts shall be limited to prevent compaction of joints.

CLEANING: While mortar is still plastic and before final set, this contractor shall clean off all mortar and foreign material from the glass block surfaces. Final cleaning shall be done by others, after mortar has reached its final set.

PITTSBURGH PC CORNING

PITTSBURGH CORNING GLASS BLOCKS

MANUFACTURED BY

PITTSBURGH CORNING CORPORATION
GRANT BUILDING PITTSBURGH, PA.

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PITTSBURGH CORNING CORPORATION

Grant Building, PITTSBURGH, PA

PC ARCHITECTURAL GLASS

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THE PRODUCT

PC Architectural Glass, formerly manufactured and marketed by Corning Glass Works under the name "Corning-Steuben Architectural Glass," is now manufactured by the Pittsburgh Corning Corporation and is distributed by Pittsburgh Plate Glass Company and by W. P. Fuller & Co. on the Pacific Coast.

PC Architectural Glass represents a high degree of artistic and technological excellence in moulded glass shapes for architectural use. The possibilities of this type of glass in modern building construction and decoration are largely unexplored, but that the possibilities are almost limitless is indicated by the striking achievements already accomplished by its use.

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A wide variety of beautifully designed pieces, styled to meet almost every need, is carried in stock at all times and can be obtained promptly. In addition, special shapes can be readily made up to suit the architect's or designer's specifications, if desired. The stock and special shapes of PC Architectural Glass can be used with outstanding success for such purposes as strip illumination, illuminated bulkheads, friezes, spandrels, door and fireplace trim, band courses, decorative inserts, pilasters, interior screens and partitions.

TYPES OF GLASS

Crystal—A brilliant, water-white glass, useful in general decorative and lighting work.

Sea Water—A very delicate, transparent-green glass, the color of which deepens as the thickness of the glass increases. (Special shapes only.)

SURFACE FINISHES

Clear—Fire polished; the natural surface resulting from intimate contact with a smooth mould. Can be, at times, quite wavy.

Matted—Frosted; a surface usually obtained by sand-blasting.

Polished—A true plane produced by mechanically grinding and then polishing to a high luster. Similar to one of the surfaces of fine plate glass.

Here is an outstanding example of how PC Architectural Glass may be used for sculptured glass murals of distinction. These panels add beauty and interest to the entrance of the new Banker's Life Company Building in Des Moines, Iowa.

Tinsley, McBroom & Higgins, Architects

Harrisburg, Pa. Entrance to Grayco Apartments

Mirrored—Highest quality mirror silvering with an electrolytically-deposited film of copper over the back of the silvering for protection.

Sand-Fused—Extremely rough and translucent, having particles of pure white sand adhering to, and partially fused with, the back surface. (Obtainable on back of special shapes only.)

EDGE FINISHES

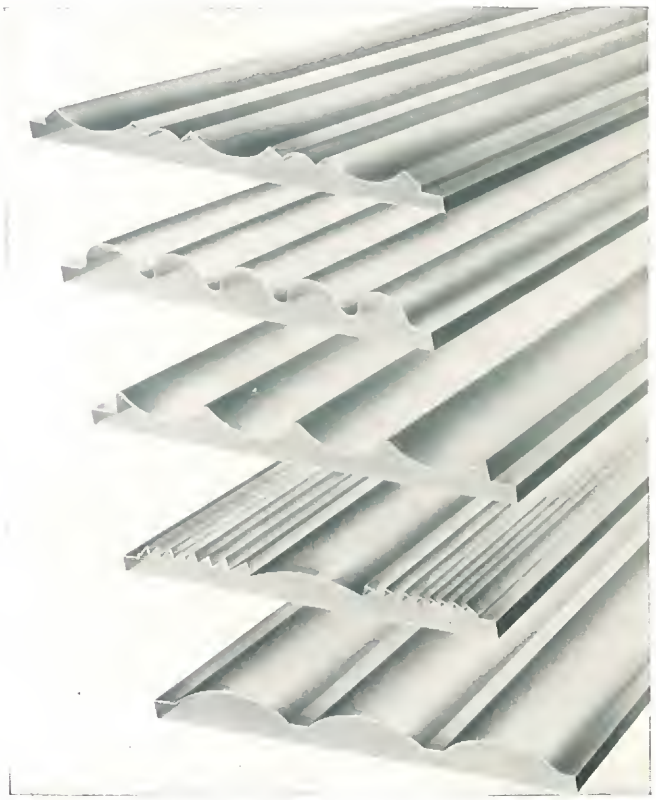
Ends Ground—Satisfactory when appearance of the joint in the design is not important.

Ends Polished—Necessary when joints are to be minimized.

Sides Cut—Satisfactory when glass is set in a metal frame. The opening to receive the glass should be ¼ in. wider than the width dimensions of the glass, since a tolerance of ⅛ in. is necessary in cutting.

Sides Ground—Necessary when glass abuts glass or another material without a frame, or where no allowance for clearance can be made.

Sides Polished—Necessary when edges are exposed, or joints are to be minimized. *Note:* Some panels have flanges or glazing lips on the sides that must be ground off (or ground off and then polished) where the edge of one panel abuts the edge of another and the joint is to be minimized.



No. 302

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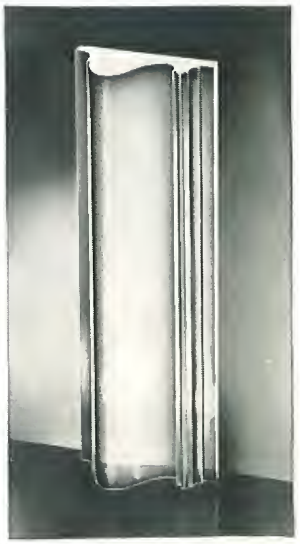
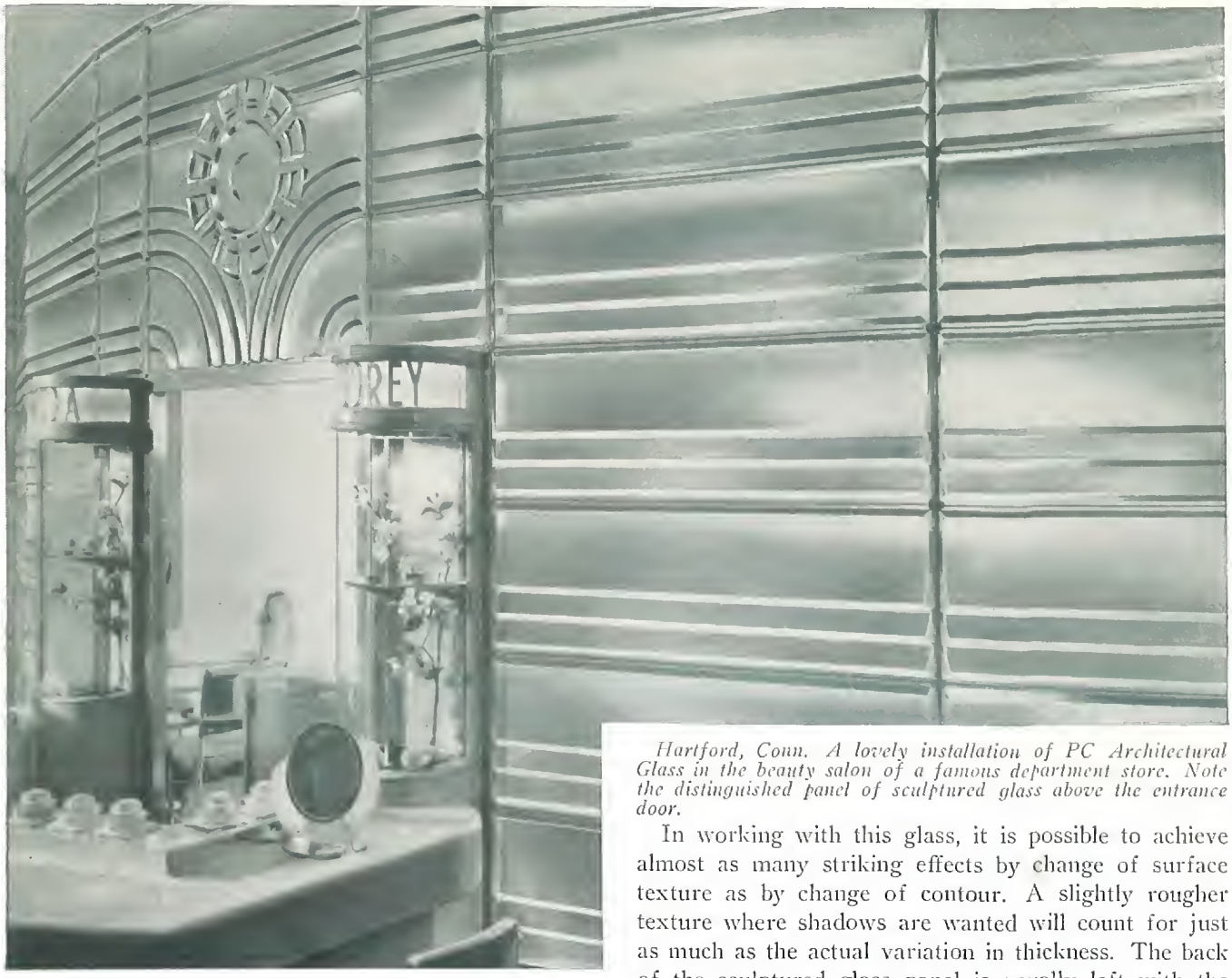


No. 308

A few of the many stock shapes available in PC Architectural Glass



Hartford, Conn. A lovely installation of PC Architectural Glass in the beauty salon of a famous department store. Note the distinguished panel of sculptured glass above the entrance door.

SPECIALLY CAST SCULPTURED GLASS

PC Architectural Glass can also be produced in specially cast, sculptured panels by a new process which has substantially lowered the cost of this exquisite treatment, making it available for far wider use by architects and designers than ever before.

It is possible with PC Architectural Glass to transform the architects' and designers' desire for true sculptural treatment of glass into an actuality. In working with this medium in bas-relief, shadows and highlights have new values, entirely different from those to be expected when working with opaque materials. A vital part of the beauty of a finished panel of PC Architectural Glass is the sparkle and life imparted to it by the constant change and filtration of light through the various thicknesses of glass.

Pieces of PC Architectural Glass as large as 4 x 4 ft. may be used to reproduce a single design, or larger panels may be made up from a number of sections 4 ft. square or smaller. It is suggested that the designer limit the relief (section through glass) to a minimum of $\frac{5}{8}$ in. and a maximum of $1\frac{1}{2}$ in., and that at least a five-degree draft on all contours be allowed to permit proper casting.

In working with this glass, it is possible to achieve almost as many striking effects by change of surface texture as by change of contour. A slightly rougher texture where shadows are wanted will count for just as much as the actual variation in thickness. The back of the sculptured glass panel is usually left with the sand-fused finish, just as it comes from the casting operation. This gives a depth and translucence to the glass which it would not otherwise have, and also creates the impression of a much greater glass thickness than is actually the case.

PC Architectural Glass in panels sculptured with the

New York City: Three-ton Glass Panel over the Main Entrance to the Palazzo d'Italia, Rockefeller Center

Created by
ATTILIO PICCIRILLI
This glass sculpture symbolizes labor's contribution to civilization

designer's own decorative creations, are specially suitable for use in large, ornamental windows, interior screens, transoms, spandrels, and indirectly lighted murals. Mounting details are simple enough to be adapted to any type of opening or kind of building construction, although it is necessary for us to furnish exact details for each job.

INSTALLATION

Architectural Glass, being of a more or less transparent nature, can not be applied like structural glass, that is, with mastic. Instead, it is usually held in place by Pittco Metal Mouldings (see PITTSBURGH PLATE GLASS COMPANY's catalog on Pittco Store Front Metal) or break moulds formed from non-ferrous sheet metals. The metal usually surrounds the individual pieces of glass and is held to the background by screws or anchors. The architectural draftsman or designer will be able to devise a great many suitable methods of support.

CO-OPERATION WITH ARCHITECTS AND DESIGNERS

In cases where an architect or designer desires to create a special design, not available in the stock pieces of PC Architectural Glass, we are glad to co-operate with him in the execution of his ideas. It is recommended, however, that a Pittsburgh Corning representative be consulted before such designs are prepared, so that the designer may have a thorough understanding of the limitations of the material with which he is working.

A TESTED PRODUCT

In buildings throughout the country, PC Architectural Glass has been employed with striking effect. On these pages only a few examples can be pictured. There are others which we will gladly furnish upon request.

Pittsburgh, Pa. An effective use of PC Architectural Glass in a modern business office. Stock shapes are here used again in combination with sculptured glass panels to create a room of unusual beauty.